UNIT: 01
THE FOUNDATIONS

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1.1 INTRODUCTION

Food service operations are continuing to improve and develop, together with advances and quality. The demand for food and beverages away from home has increased and, with a broader spectrum of the population eating out, customer needs are continuing to diversify. The traditional means of service have changed over the period of time and the modern day outlets are offering varied level of services to its ever demanding clients in a more planned and controlled manner. These types of establishments and their service styles have become a critical factor in success of an establishment.

1.2 OBJECTIVES

After learning this unit the learner will be able to:

- Define catering industry
- Explain about food Service Industry
- Define various Sectors of Catering Industry
- Differentiate different types of Catering Establishments
- Elaborate about Menu
- Classify various types of Menu
- Discuss in detail about French Classical Menu
- Practice Personal Hygiene, Sanitation and Food Safety
- Define HACCP
- Show interest about Environmental Concern

1.3 THE FOOD SERVICE INDUSTRY

The primary role of the food service industry is to provide food to all those who are not in a position to take food at their homes due to one or other reasons. People who move out of their homes for different reasons are largely dependent on the food service industry for their meals. As soon as the humans started travelling due to one or other motives, at the end of the day they wanted a place to provide a safe and secure shelter to them, which was evidently taken care by caves, trees, etc. Later, a system of providing accommodation along with food and beverage facilities was introduced as a barter system and also a mechanism for providing food and beverage facilities on the move was developed, i.e. during the caravans and other modes of travel, which led to the concept of catering or providing food to a mass. The system also led to the introduction of various types of food joints / establishments which were designed primarily on the basis of needs and wants of the travellers. The industrial revolution helped the industry to develop in a more sophisticated manner as the disposable incomes of the common man increased and the demand forced the service providers to think of developing new ways to attract the wealthy individuals. The same time period also witnessed the development of concepts of Bars / Pubs which were mainly targeted on the industrial workers and travellers. Eighteenth and the nineteenth century saw the introduction of component of luxury in its day to day activities and the basic facilities now got converted into luxurious places of dining offering the best possible delicacies to its clients. The present time is another phase of changing trends in food service industry which are mainly because of the advent of trends and technologies.

1.3.1 Sectors of Catering Industry

There are many types of food and beverage outlets which vary in size, style, location and service clients. The industry caters to the demands of lakhs of people on the basis of their demand of:

- Food which includes a wide variety of cuisines, styles and speciality e.g. Chinese cuisine or Italian cuisine, styles like grilled or stir fried, speciality like vegetarian or non-vegetarian, etc.
- Beverage which includes all alcoholic and non alcoholic drinks. Alcoholic drinks may include wines, spirits, beer, cocktails, etc whereas non alcoholic beverages may include mineral water, lassi, tea, juices, etc.

A fine dining restaurant, a dining outlet of accommodation sector, a roadside dhaba, a vendor at railway station or a chaiwala at footpath, all are a part of food and beverage industry. Therefore, it becomes imperative to segregate various sectors of catering industry i) on the basis of priority of service, and ii) on the basis of profit motive

On the basis of priority of service, the food and beverage industry can broadly be classified as:

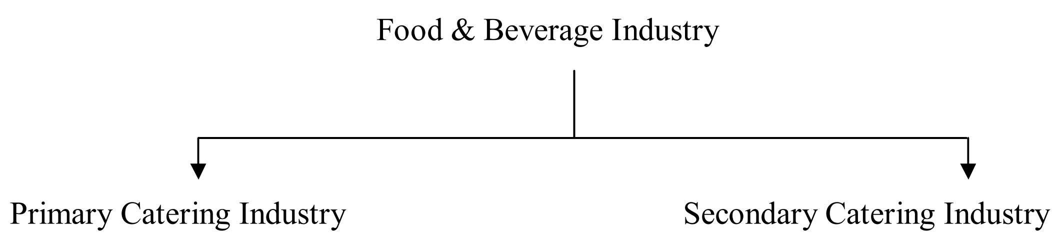

Figure1.1 Classification of F&B Industry on the basis of priority of service

Primary Catering Industry covers those types of establishments which are designed and primarily operated for the purpose of serving food and beverage to its clients. For example, various types of restaurants, takeaways, dine-ins, F&B outlets of accommodation sector, etc.

Secondary Catering Industry covers those types of establishments where providing food and beverage service is not the primary activity of the organization. For example, hospital catering, institutional catering, transport catering, etc.

On the basis of profit motive, the f & b industry can broadly be classified as:

Food & Beverage Industry

- Commercial Sector (Profit Oriented)
  - *(General Market)*
    - Hotels, Motels, Resorts
    - Restaurants
    - Bars and Pubs
    - MICE Catering
    - Food Courts
    - Function Catering
    - Take away / Fast food
    - Theatres and Amusement Parks
    - Off Premises Catering
    - Other Catering Establishments
  - *(Restricted Market)*
    - Transport Catering
    - Clubs
    - Contract Catering
- Welfare Sector (Service Oriented)
  - *(Restricted Market)*
    - Institutional Catering
    - Hospitals
    - Defence Forces
    - Prisons
    - Old age homes
    - Orphanage

CHECK YOUR PROGRESS -I

Q.1 Write note on food service industry.

Q.2. Explain various sectors of catering industry.

1.3.2 Types of Catering Establishments

The various types of catering establishments are as under:

- Restaurants
- Bars & Public Houses
- MICE
- Food Courts
- Functions and Events
- Takeaways and Fast Foods
- Theatres and Amusement Parks
- Off-Premises
- Other Commercial Catering
  - Bristro
  - Brasserie
  - Gastrodom
  - Coffee Shops
- Transport
  - Roadways
  - Railways
  - Airlines
  - Ships and Cruise lines
- Clubs
- Institutions
- Hospitals
- Defence Establishment
- Prisons / Correction Houses
- Old age Homes/ Orphanages

RESTAURANT

The primary function of commercial restaurants is the provision of food & beverages. Most of the independent restaurants do not have any in-house trade, they depend on their location and volume of passing trade and the reputation they develop from word-of-mouth advertising. Various types of restaurant include snack bars, cafes, coffee shops, takeaways, ethnic restaurants, haute cuisine restaurants, etc. These varied types of establishments have equally varied styles of service styles, ranging from self service cafeterias to elaborative French service outlets. Many restaurants follow the ethnic styles of service like Chinese, Indian, Japanese, etc. These establishments may have or may not have a separate area for bar service alcoholic beverages which acts as a double beneficiary to the establishment by the means of giving a separate space for customers and also by giving more space and faster seat turnover in the dining area.

BARS AND PUBLIC HOUSES

Public houses consist of a varied group of establishments, which mainly offer alcoholic beverages to its customers. Depending on the type of licence, it can be sold for in-premises consumption or off-premises consumption. Supply of food items and snacks become an ancillary part of this business and have come into practice because of the customer's demands. The menu offered in these outlets varies right from convenience foods to a full a-la-carte menu. Recent past has seen a noticeable change of public houses and the style of service and operations have change drastically.

MICE

This type of catering can be an On Premises Catering or Off Premises Catering depending on the type of function. MICE (Meetings, Incentives, Conferences and Exhibitions) are arranged in accordance to the specific purpose and therefore, the type of catering differs in each. In most of the cases, this type of catering is limited to packed food or working lunches, hi tea, or such type of quick service. Such catering plays a huge role in case of events like India International Trade Fair where the participants expect the food to be delivered to them on specific timings with a good quality and taste.

FOOD COURTS

This is a relatively new concept of the catering industry wherein the guests can enjoy a variety of food or beverage of different types, tastes, origin, etc. These are a part of establishments like malls, theme parks, amusement parks, road layoff areas, etc. A common place for dining is provided to the customers, which is catered by different food and beverage service establishments. The benefit of operating such types of units is the variety a client gets while having his meal. The service style is generally self service or at time, can be assisted service which helps in fast turnover and less staff requirement making it more profitable for new entrepreneurs.

FUNCTIONS AND EVENTS

Function catering may be described as the service of food and beverage at a specific time and place, for a given number of people, at a mutually agreed price and other terms. Social gatherings like marriages, business functions like conferences and any other function which might have been organized for social or welfare or business purpose will witness function catering. It can be found in commercial as well as non-commercial sector.

TAKEAWAYS AND FAST FOOD

These types of outlets are concerned with the preparation and service of such food and beverage items which can be prepared and sold on an immediate basis for the consumption either on or off the premises. These units are generally themed around a single product, a range of products (e.g. burger, pizza, etc.) or products from a specific country or region (e.g. south Indian, Chinese, etc). The production chain is either semi automated or fully automated making the operations fast and simple and involves use of convenience foods. Staff involved in the operations is generally multi skilled so that the units can be more productive with less number of staff which ultimately results in bringing down the costs of operations. Such outlets also offers the services of drive through facilities which are targeted on the passing by customers who do not wish to get down and would like to have their food in the car itself.

THEATRES AND AMUSEMENT PARKS

Catering involved in theatres and amusement parks is simple and speedy. Generally follows the principle of takeaways and fast food outlets i.e. limited choice in the menu with fast service operations. The items normally served are snacks and non alcoholic beverages which are moderately priced so as to make it attractive and popular amongst the visitors. Moreover, heavy food or full meals restrict the psychological factor or enjoyment. Keeping in mind about the ease of operations with minimum possible staff, food and beverages offered are mostly served in disposables.

OFF-PREMISES

Off premises catering or Off-site catering is one of the most popular types of catering which is supposed to cater at any location which is off the main work place. It constitutes a number of transportable equipment, gadgets and supplies. The standard of the catering varies from a simple get-together lunch to a themed marriage function. Temporary structures are set up at the place of function and all necessary supplies required for the function are gathered. The food and beverages offered are often limited due to the restrictions of transportation but nowadays many of the entrepreneurs are not taking it as a constraint due to the availability of refrigerated transport vans. The food is generally prepared at the centralized kitchen and then transported in the vans before it is given a final touch at the service station.

OTHER COMMERCIAL CATERING ESTABLISHMENTS

The other commercial catering establishment includes Bristro, Brasserie, Gastrodom and Coffee Shop.

Bristro

These are small establishments with casual style of seating and furniture. May or may not serve alcohol. Menu normally comprises of simple and easily prepared dishes. Braised meats and coffee are the specialities of such outlets. Menu may be on a black board or if printed, with specials on board. The service is fast and casual with no cutlery pre-sets on the table.

Brasserie

These are comparatively bigger establishments with formal style of seating and furniture. Normally, it serves drinks, one plate items and other dishes apart from snacks and coffee. The menu offered is printed and the service is given in a formal style by waiters in traditional uniform of long aprons and waistcoats.

Gastrodome

This is a multilevel establishment with a sleek interior design offering all the services of a traditional brasserie. These types of outlets are normally found in the busy malls and shopping centres where the crowd is moving and would not like to spend more time in having food and beverages. It is often referred as New wave brasserie and is normally busy and bustling with crowd. The cover turnover is quite high.

Coffee Shop

Coffee shop is a modern day concept which came from USA. It is a restaurant which generally serves all meals of the day right from breakfast tot the supper. These are often operational 24 hrs in a day in hotels to cater to round the clock demands of hotel guests. The furniture, cutlery and crockery utilized are not very expensive and the style of service is casual. Generally, the food ordered comes pre-plated and covers are laid on table mats.

TRANSPORT

As the name says, transport catering deals with catering done in rail, air, road and sea i.e. in all the modes of transport. It is distinctly different from other types of catering businesses as it involves feeding large number of customers at specific time. The physical conditions in the work area make the service of food and beverage items more difficult. Mixed client, restricted operational area, high costs and limited staff availability makes the things more non-conducive. Transport catering can broadly be classified into the following types:

- Roadways
- Railways
- Airlines
- Ships and Cruise Liners

Roadways

The most popular mode of travel since the early times is travelling by road. The taverns of the earlier times have now been transformed to present day motels and other road side catering establishments. The operational timings for such units are normally twenty four hours of the day. Staffing remains an area of concern for these outlets as they are normally located on the highways at a distance from populated areas and the peak time operations require more number of people. The food and beverages offered has a wide variety as different travellers have different choices during the period of journey. But still, most of the units serve food from light snacks to full meals and non alcoholic beverages with the options of take away food.

Railways

Rail is one of the cheapest and most convenient modes of distance travelling. It caters to thousands of people on everyday basis on its terminals or during the journey. Therefore, railway catering can be divided into two parts: a) Terminal Catering and b) In-transit Catering. Catering at railway stations or terminals is done through licensed cafes, food stalls, fast food and takeaway vendors, canteens, etc. Catering during the transit is more difficult as large amount of food is prepared and served to the passengers on their seats. Cooking during a moving train is itself a challenging task but serving the food in a moving train makes it more difficult as there is always a possibility of spillage. Hence, special training is required for the food and beverage staff involved in railway catering.

Airlines

The distinctive feature of airline catering is that this requirement is often catered by a similar vendor who is supplying alike food to other air carriers as well. The price of the food and beverage is generally included in the price of the ticket. Similar to railway catering, airline catering can also be divided into two types:

a) Terminal Catering and
b) In-flight Catering.

Catering at the airports and terminals is done through licensed cafes, fast food outlets, self service and waiter service restaurants, supplemented by vending machines and bars. The in-flight catering varies with the class of travel. The economy class passengers are offered pre-portioned snacks or meals with disposable cutlery and crockery assembled over a plastic tray thereby reducing the weight in the flight whereas, the passengers of business class or executive class are offered food on bone china crockery with EPNS cutlery and fine glassware. Also, there is no restriction of the portion for the passengers of business class. Additionally, they are also served the food of their choice whereas the passengers of economy class do not get any choice except that of vegetarian and non-vegetarian food. The space of movement and storage inside the aircraft acts as the major deterrent in providing a more detailed dining experience. It forces the airlines to lookout for a lighter and easy to carry approach.

Ships and Cruise Liners

The level of service and food varies in accordance to the distance of the sea routes. Normally ferries plying on shorter sea routes will have the facilities of snacks and soft beverages whereas ships plying on longer routes will have full fledged kitchens offering full meals to the travellers. Level of food offered and service reaches its heights when the catering is done on luxury cruise liners as availability of variety of food and beverages makes the difference between two competitive cruise liners. The menu (often fixed and cyclic in nature) offered in the vessels has to be balanced as many of the travellers face the problem of sea sickness apart from the possibility of having ‘scurvy’, a disease caused due to over usage of canned food.

CLUBS

Clubs are those establishments which offer the services of food & beverage and sometimes accommodation to their licensed members. These may include a political party club, societal clubs like Lions Club or Rotary Club, sports clubs like Mohun Bagan, working men’s clubs, association clubs, health clubs, etc. Such clubs are operated after obtaining legal permissions from the local administration and a major part of their revenue is generated through the sales of food and beverage in the associated restaurant and bar. Clubs are normally known to provide good quality food and beverages.

INSTITUTIONS

Institutional catering is the catering normally done at various educational institutes like schools, colleges and universities. It can be either separated into the catering for residents and non-residents or can be a common structure for both. It is considered to be one of the specialized forms of catering as the menu offered is normally cyclic and should be designed in accordance to the nutritional requirements of the students which normally depends on various other attributes. This type of catering is often subsidized or the margin of profit is kept to the minimal but nowadays many of the organizations are into a practice of making is commercially viable option and are leasing their food premises on contract to other companies for operations. It a time bound and fast mode of operation requiring a bigger space and comparatively good manpower. Normally, all meals of the day are served in the mess or cafeteria and special provisions are made for holidays and off days. Institutional catering is discussed under following headings:

- Hospitals
- Defence Establishments
- Prisons / Correction Homes
- Old Age Homes / Orphanages

Hospitals

It is a completely specialized form of catering which deals with one of the most crucial aspects of a patient's recovery i.e. meeting out his dietary requirements. There are various types of patients in a hospital at a given point of time and all with different types of ailments. Some of them might be recommended for a different dietary plan whereas some may be referred for another, thus, making it a challenging task to meet out the requirements of all patients. Normally, the food is prepared in a centralized production unit, plated and served through trays to different areas.

Defence Establishments

Most of the defence forces including The Army, Navy, Air Force, Coast Guard, Police, Paramilitary, Fire Brigade and other such associated services have their own catering units which generally deal with their requirements. Most of the forces are known to have structural level of catering i.e. different service establishments for various cadres. The JCO's and below level staff are served food in large self service cafeterias whereas the commissioned rank officers are served either in Officer's messes or specialized restaurants offering a wide variety of food and beverages. Defence organizations also specialize in organizing large scale banqueting arrangements for their personnel and such functions can be inside the premises or off-premises as well.

Prisons / Correction Homes

Most of the catering done in the prisons or correction homes is managed by the inmates themselves under the supervision of a catering officer. The warden normally gives the responsibility to such inmates who can manage the catering operations. The allowances for catering to inmates are very limited and hence the food is strictly prepared as per the predefined cyclic menu and is simple. The portions distributed are controlled and in case of extra dietary requirements, separate payments are made by the inmates from their personal savings.

Old Age Homes / Orphanages

Catering done at old age homes or orphanages is altogether different from those given in other sectors. It is a mix of catering which is done at the level of schools, colleges and hospitals. As the dietary requirement of each resident differs, the food is generally prepared keeping in mind about the RDA (Recommended Dietary Allowance) requirements. In case of requirement of any extra nutritional requirement to be given, supplementary food is also provided.

CHECK YOUR PROGRESS -II

Q.1 What do you mean by transport catering?

Q.2 What do you mean by institutional catering?

1.4 THE MENU

The classical French Menu contains seventeen courses served in classical format or order of dishes. This format is used to lay out menus as well as to indicate the order of the various courses. The actual number of courses on a menu and dishes within each course depend on the size and class of the establishment, the structure of the French; Classical Menu is followed even for modern shorter menus. Nowadays a full French Classical Menu is rarely served except as special dinner or banquet menu. The general procedure is to have 4 to 5 courses for lunch and 5 to 6 courses for dinner altogether making up the French Classical Menu, each course having a wide choice. This forms of menu shows the true art of menu compilation, where balance must be perfect throughout the courses especially with regard to nutritional value, method of cooking garnishing etc.

In a restaurant, a menu is the list of dishes to be served or available for a diner to select from. The items that are available for the diner to choose from are broken down into various categories, depending on the time of day or the event. The compilation of a menu is the most important part of a caterer's work. It is regarded as an art, acquired only through experience and study. The menu is a link between the guest and the establishment; hence it should be carefully planned by the establishment's professionals, namely the executive chef, the food and beverage manager and the food and beverage controller.

Originally the bill of fare, as it is termed in English, or menu in French, was not presented at the table. The banquet consisted of only two courses each made up of a variety of dishes, anything from 10-40 in number. The first 10-40 dishes were placed on the table before the diners entered-hence the word entree-and when consumed, were removed or relieved by 10-40 other dishes-hence the words relive’s and removes.

It is said that in the year 1541 Duke Henry of Brunswick was seen to refer to a long slip of paper. On being asked what he was looking at, he said it was a form of programme of the dishes, and by reference to it he could see what was coming and reserve his appetite accordingly. Thus, we may presume that the menu developed from such an event.

The word menu dates back to 1718, but the custom of making such a list is much older. In earlier times, the escriteau (bill of fare) or menu of ceremonial meals was displayed on the wall loadable with the kitchen staff to follow the order in which the dishes were to be served. It is said that in older times, menus were like a large dictionary with sections covering a variety of dishes. As time progressed the lengthy single copy menu became smaller but increased in number allowing a number of copies placed in table increased. Depending on the establishment and the occasion, the menu may be plain or artistic in its presentation.

However the present definition of menu or bill of fare is the list of items offered by restaurant or any other eatery which is either individually priced or lump sum to facilitate the customer or guest to decide and balance his meal on his own and also prepare his budget for his meal. Menu has entirely different connotation these days. Apparently, it has become a great marketing cool. It is an integral part of ambience. It is a treat to the eye and pleasure to touch like a typical Hors d'oeuvre intangible with lucid mouth watering descriptions of dishes.

The importance of menu is manifold for the guest- that he can plan and choose his meal balancing himself the quantity and substance to complete gratification, from the point of view of guest it is awareness about other dishes as well as a variety offered so far unknown to him. For the management it is a price list, it is a mode of advertisement and it is also an acquaintance programme for the customers. It avoids controversies, imparts transparency in the process of selling. For the service staff it is a helping tool in selling and describing the product. It gives the service staff time out from demanding hungry customers. The menu is so designed that it becomes a selling tool.

Menus are normally laid out in sequence of courses of meal however they don't strictly go by French classical sequence always, At times some of the courses are subjected to subsections and few others one added on e.g, main course might have as many as six subsections like mutton, chicken, pork and add on are vegetarian snacks, cereals, bread, sofl drinks etc, Menus have a fair amount of descriptions attached to dishes mentioned less known to the customers, These descriptions are often flowery expressions to attract the attention and whet the appetite of the guests.

1.4.1 Types of Menu

The menu has become a very important component of restaurant planning because entire gamut of sales and reputation depends upon designing and execution of the menu. Menus may be classified in four different ways i.e. pricing, schedule and meal times. Brief descriptions of different types of menu are given below:

1.4.1.1 Menu Classification On The Basis Of Price

Under this category, menus are led by the way they are priced to meet the varying budgets of customers. Menu items may be individually priced or a whole meal priced i.e. A la Carte and Table d' hote menu.

1. A la Carte Menu: An "A La Carte Menu", is a multiple choice menu, with each dish priced separately to give the guest choice to suite his or her tastes and budgets. Each course has a number of choices. If a guest wishes to place an order, an a la carte is offered, from which one can choose the items one wants to eat. The courses generally follow the sequence of the classical menu. Traditionally, the original menus that offered consumers choices were prepared on a small chalkboard, a la carte in French; so foods chosen from a bill of fare are described as à la carte, "according to the board."

In an a la carte menu all items are cooked to order including the sauces that are made with wine, cream or mustard. Depending on the dish chosen by the guest, the cooking time will vary. It is necessary to inform the guests about the time the preparation might take. An extensive a la carte menu is impressive but involves a huge amount of mise-en-place.

2. Table d' hote Menu: Table d'hôte is a French phrase which literally means "host's table". It is used to indicate a fixed menu where multi-course meals with limited choices are charged at a fixed price. Such a menu may also be called prix fixe ("fixed price"). It usually includes three or five courses meal available at a fixed price. It is also referred to as a fixed menu. Because the menu is set, the cutlery on the table may also already be set for all of the courses, with the first course cutlery on the outside, working in towards the plate as the courses progress.

Fixed menus or table d' hote menus are still used in various forms such as buffet menus, conference packages and on special occasions. A table d' hote menu comprises a complete meal at a predetermined price. It is sometimes printed on a menu card or as in the case of banquets, it is agreed upon by the host of the party. A banquet style of fixed menu has more elaborate choices ranging from the soup to the dessert. For the banquets, the host invariably fix or selects the menu in consultation with the hotel staff in advance.

Most of the banquet food served in India is normally of Indian food. For this, a printed format offering a choice of vegetarian and non-vegetarian dishes is prepared, from which the guests make their choice. Western style fixed menus normally provide the choice of a starter or soup, a main course, and finally a dessert. In each course there could be a choice of dishes to suit the tastes of individual guests.

Table d'hote menus should be well planned and balanced. As the guest is not given a chance to plan his own meal, the meal should be interesting, without any similarity in the colour and taste of the courses as well as being palatable, delicious and well presented.

If the main course is heavy, then the first course should be lighter, and act as an appetite stimulant for the courses to follow. Dishes that are heavy and hard to digest should be avoided. The colour, varieties of ingredients used, and the garnishes should, if possible, be different for each course. Fixed menus are prevalent in transport catering which include air, rail, and sea passengers. The guests have a variety of fixed or table d'hote menus, with virtually no choice offered to the passengers (except the first class air passengers). Cruise liners may have elaborate fixed menus with multiple choices built into each course.

1.4.1.2 Menu Classification On The Basis Of Schedule

This category focuses on the frequency of menu revision. Some establishments offer menus that last months while others are changed daily.

1. Fixed Menus: A fixed menu is one which is used daily for a period of months or a year, like most restaurants. The restaurants that use such menus either have a large variety of items within each course or when the frequency of repeat guests is less. Establishments like transit hotels, specialty restaurants or weekend resorts may choose fixed menus because the guests are in for a short visit or visit the restaurant for variety from the usual. The best that a restaurant with a fixed menu can do in offering variety is to have dish du jours or specials of the day. Franchised operations may stay with fixed menus that are time-tested and standardized. A KFC or Burger King will have their stock items in the menu for years.

2. Cyclic Menus: These are designed to offer frequent guests a variety. The cycle of menus can be on a daily, weekly or monthly basis. These menus may be found in downtown lunch restaurants frequented by a dedicated business clientele. Isolated resorts may offer cyclic menus to their guests who do not have anywhere else to go. Cyclic menus will require multi-skilled cooks, flexible purchase and production schedules.

1.4.1.3 Menu Classification On The Basis Of Meal Time

The traditional meal times of breakfast, brunch, lunch, tea and dinner have their special types of meals justifying separate meals for each. There may be restaurants specializing in a particular mealtime. Business centre outlets may specialize in lunch menus because the business district closes in the evening. Many hotels may offer only bed and breakfast. They would naturally specialize in breakfast menus. Fine dining is normally done at night and is located near shopping malls, entertainment centres or in hotels. These restaurants only open at night in which case they would specialize in dinner menus. Night Clubs and

Discotheques are a good example of this category.

1. **Breakfast Menus:** Breakfast menus are fairly standardized. Most restaurants will offer a choice of juices, cereals, eggs to order, breakfast meats like bacon, sausages or ham, waffles or pancakes with maple syrup, for the sweet toothed. The bed and breakfast establishments generally serve a choice of breads, jam and marmalade, tea and coffee. The breakfast is an important meal to many cultures and guests want a cheap and wholesome meal. Being the first meal, guests are in a hurry and want a quick service. Therefore, breakfast buffets are common in outlets with brisk morning business.

2. **Lunch Menus:** Lunch menus can vary from elaborate meals or light meals depending on the purpose and culture of the guest. Business-persons prefer sandwiches, salads and soups due to limited time at lunch breaks or are weight-watchers. Salad bars have become an important part of must luncheon restaurants. Those restaurants that have dedicated clientele may choose to go for cyclic table d' hote luncheon menus, to break the monotony of one single menu. They may even offer specials of the day displayed along with their regular menu.

3. **Dinner Menus:** These menus are elaborate as guests have more time and leisure for eating. Dinner menus are an entertainment and people are willing to pay extra for these meals. Alcoholic drinks are an essential part of dinner menus. A well-stocked wine list is offered in addition to the dinner menu. Dinner menus will have house specialties and a real chance to sell their expensive items. Appetizers are more accepted at the evening meal than during the day. Similarly desserts are preferred at dinner time.

4. **Supper Menu:** The term 'supper is used in the European continent but it varies in purpose around the continent. It can be a light dinner for either early evenings or late nights. It can be filler between two major meals lunch and dinner or dinner and breakfast. A typical early evening supper meal can be a soup, meat dish with vegetables and a light dessert. A late night supper can consist of a sandwich with hot cocoa or fruit.

5. **Brunch Menus:** Are designed for the family or guests who wish to wake late. They are popular on holidays and weekends as also at vacation spots where the pace of life slows down. Brunches (which is a combination of breakfast and lunch), are spread well beyond breakfast hours. The brunch will have combinations of breakfast and lunch items to suit the mood and taste of the individual.

CHECK YOUR PROGRESS-III

Q.1 Write a short note on the origin and development of the menu?

Q. 2 Classify the menu on the basis of meal time?

1.4.2 French Classical Menu

The classical French menu contains thirteen courses. Today, a menu of this size is hardly ever offered. But even today's shorter menus follow the structure of the classical French menus as far as succession of courses is concerned. They always start with something light to stimulate the appetite, build up to the main course, and then become lighter toward the end of the meal. The thirteen courses of the French Classical Cuisine menu for are given below:

Course	French	English	Example
1.	Hors d'oeuvre	Appetizer	Melon with port, rémoulade, oysters, smoked salmon, shrimp cocktail
2.	Potage	Soup	Consomme brunoise, crème of tomato soup
3.	Oeufs	Egg	Omlette Espagnole, Omelette aux tomates

4.	Farineaux	Rice and pasta	Spaghetti Napolitaine, Ravioli,Cannelloni
5.	Poisson	Fish	Sole de bonne femme
6.	Entrée	First meat dish	Fillet of sole Joinville
7.	Relevé	Main meat dish	Saddle of Iamb
8.	Sorbet	Flavoured ice water	Champagne Sorbet
9.	Roti	Roast with salad	Guinea hen stuffed with goose liver, salad
10.	Legumes	Vegetables	Tomato farcis
11.	Entremets	Sweet	Charlotte russe
12.	Savoureux	Savory	Welsh rarebit, Ivanhoe
13.	Desservir	Dessert	Jellied fruit

Table: Thirteen Courses French Classical Cuisine Menu

1. **Hors D'oeuvre:** Being of a highly seasoned and piquant in nature, this course is used to manipulate the appetite for the dishes that are to follow. In recent years, hors d'oeuvres have gained in popularity, and now appear even on simple menus in modest eating places. Although the actual term "hors d'oeuvres" applies to the service of various cold salads and morsels of anchovy, sardines, olives, prawns, etc., it also covers whatever items are served before the soup.

2. **Potage:** The French have three separate words for soup. Consommé is a clear, thin broth. Soup refers to a thick, hearty mélange with chunks of food. Potage falls somewhere between the two in texture, content and thickness. A potage is usually puréed and is often thick, well-seasoned meat or vegetable soup, usually containing barley or other cereal or a pulse (e.g. lentils). Today, the words *soupe* and *potage* are often used interchangeably. On good-class à la carte menus, a fish soup is also usually offered for selection, the two most common being "Bisque d'Homard" or "Bouillabaisse."

3. **Oeufs:** Oeufs are the dishes made from egg. The omelette is the most popular item, but there are other styles of cooking and preparation of eggs such as boiled, en cocotte, poached or scrambled. This course is not included in the dinner menu. Some examples are omelette, Espagnole, Oeuf en Cocotte a la crime, Oeuf poche florentine.

4. **Farineux:** This is Italy's contribution to the courses of the menu. It includes different kinds of rice and pasta. Pasta dishes are spaghetti, lasagne and gnocchi. Pasta is made from durum wheat semolina or milled durum wheat to which water is added to form a dough. It can be coloured and flavoured in various ways. There are more than 200 varieties of pasta. The ingredients, size, shape and colour determine the type of pasta. Some examples include Spaghetti Bolognaise, Lasagne Napolitaine and Macaroni au gratin.

5. **Poisson:** Poisson are the dishes made from fish. Fish, being soft-fibred, prepares the palate for the heavier meats that follow. Deep-fried or grilled fish dishes do not generally occupy a place on the "classical dinner menu," but are freely offered on the shorter-coursed luncheon menu. This also applies to the coarser members of the fish family, and the dinner menu is usually comprised of the finer fish prepared and cooked in the more classical manners. Ideal fish for dinner menu compilation are: Sole, Salmon, Halibut, Escallops, etc. Rarely seen on a menu for the evening meal are: Cod, Bass, Haddock, Brill, Hake, and Plaice. One deep-fried fish dish, which normally finds itself on the dinner menu, however, is "Blanchaille" and this only because Whitebait is so light and in no way too filling for the comfort of the guest.

6. **Entrée:** This is the first of the meat courses on a menu. It is always a complete dish in itself. It is despatched from the kitchen garnished and sauced in the manner in which it is intended to be served. The "entrée" is always cooked and garnished in an artistic manner and usually served with a rich sauce. The "entrée" can be devised of almost anything light. This course consists of all the small cuts of butcher's meats, usually sautéed, but never grilled. Grilled steaks, cutlets and chops invariably replace the joints as the roast (roti) course.

7. **Relevé:** This is the main meat course on the menu, and is commonly known as the "piece de resistance." It may consist of joint of any of the following:

Lamb (Agneau)	Chicken (Poulet)
Beef (Boeuf)	Duckling (Caneton)
Veal (Veau)	Fowl (Poulard)
Ham (Jambon)	Tongue (Langue)
Pork (Pore)	

These joints would be cooked by the sauce cook in a first class hotel or restaurant, by any method except roasting. They are usually cooked on casserole, braise or poêle. Generally cooked in a sauce and served with it.

8. **Sorbet:** This course is a rest between courses. It counteracts the previous dishes, and rejuvenates the appetite for those that are to follow. Normally served between the releve / remove and the roti, it is water and crushed ice slush flavored as a rule with champagne and served in a glass. A frozen dessert made primarily of fruit juice, sugar, and water, and also containing milk, egg white, or gelatine. Some examples are Sorbet Italian and Sorbet crème de menthe. Russian or Egyptian cigarettes are often passed around during this course.

9. **Roti – Roast:** This course normally consists of game or poultry and is often included in the entree. Each dish is accompanied with its own particular sauce and salad. Some examples are Roast chicken, Braised duck and Roast quail.

10. **Legumes:** These are vegetable dishes that can be served separately as an individual course or may be included along - with the entrée, relevé or roast courses. Some examples are Cauliflower Mornay, Baked potato and Grilled tomatoes.

11. **Entremets:** Entremets on a menu refers to desserts. This could include hot or cold sweets, gateaux, soufflés or ice-cream. Some examples are Apple pie, Chocolate soufflé and Cassata ice-cream.

12. **Savoureux:** A dish of pungent taste, such as anchovies on toast or pickled fruit. They are served hot on toast or as savoury soufflé. Welsh rarebits, Scotch woodcock, Canape Diane are some of the examples. Fromage (Cheese) is an alternative to the outdated savoury course, and may be served before or after the sweet course. It is usually served with butter, crackers and occasionally celery. Gouda, Camembert and Cheddar are some examples of cheese.

13. **Desservir:** Dessert is a course that typically comes at the end of a meal. The French word desservir mean "to clear the table." This is the fruit course usually presented in a basket and placed on the table, as part of the table decor, and served at the end of the meal. All forms of fresh fruit and nuts may be served in this course. Common desserts include cakes, cookies, fruits, pastries and candies.

1.4.3 Menu Planning

Menu Planning means to compose a series of dishes for a meal. Composing a good menu is an art and it needs careful selection of dishes for the different courses, so that each dish harmonizes with the other. The menu planning process starts with the mission of the establishment and the consequent policies of the establishment. While a mission is a strategic goal to be achieved over a period of lime, policies are guidelines for action set by the owner or top management. Menu Planners need to be fully conversant with them as the framework within which to create the menu. The perfect menu is not the work of a single person, but the effort of a team of experts like chef and f & b manager who bring different talents into the final production of the menu cover.

Basic Principles of Menu Planning: The basic principles of menu planning are as under:

- Location of the Establishment
- Type Food service in the Establishment
- Type of Customer
- Seasonal Availability
- Availability of Equipments in the Kitchen
- Capability of Kitchen and Services Staff
- Leftovers in Hand

- Cost of the Menu
- Policy of the Establishment
- Service Hours
- Nutritional Factor
- Occasion
- Gastronomical Rules

1. **Location of the Establishment:** If the establishment is situated in a business area the menu should be planned in a certain way so the service would be quick and should be moderately priced. Situated on highway/motels or road sides menu will offer a limited Choice, quick service and moderately priced. Residential area- menu should be oderately priced it should appeal to families.

2. **Type Food service in the Establishment:** If it is Chinese restaurant- majority of selection will be Chinese. Snack bar – Majority of dishes will be snacks. Menu pattern will vary from hotels, restaurants, hostel, hospitals and industrial canteens. In a hostel or hospital and industrial canteen more or less fixed menu is offered and important is given to nutritive value.

3. **Type of Customer:** Type of people there age group, sex, religion, occupation spending power should be taken into consideration a seating habits vary with group. People doing physical and laborious jobs req. more substantial meal then people who do clerical work.
4. **Seasonal Availability:** Although in these days of cold storage ingredients of all are available yet food in season should be included in the menu.

5. **Availability of Equipments in the Kitchen:** Menu should be in accordance to the equipments in the kitchen to plan a menu for 3004 roast items with only oven, in the kitchen would make it difficult for service.

6. **Capability of Kitchen and Services Staff:** Do not plan an elaborate menu if it is the beyond the ability of the cooks pre pack the dishes also consider the staff is capable of serving certain dishes with special presentation.
7. **Leftovers in Hand:** It is better to use leftovers and recover some money or cost rather than spoiling the food. Chefs skill is in converting leftover to a new dish so that customer does not know about it (Specialty of the day)

8. **Cost of the Menu:** The selling price of the menu should be kept in mind so that the food cost is well controlled.

9. **Policy of the Establishment:** Certain establishments may not serve exception foods because of their policy like pork, beef etc.

10. **Service Hours:** Also determines the type of menu.

11. **Nutritional Factor:** Menu should be nutritionally balanced.

12. **Occasion:** What kind of Occasion it is? Like Festivals, Marriages etc.

13. **Gastronomical Rules**

- To avoid repetition each dish should be different in composition.
- Composition of individual dishes must be excellent. This should be well cooked, tastefully dressed.
- Mode of cooking should be different so that each one is distinct from the other bearing no relation in appearance of the all dishes.
- Various types of sauces in the preparation and as accompaniment used must be distinctly different in color taste and flavor.
- When 2 or more types of fish are to be served first should be boiled or poached and the 2nd fried or grilled or broiled.
- The entrée should always be classified so that light dishes such as quick croquette are served first and meat cutlets steaks are served later.
- Too dark meat or too white meat must not follow each other.
- If there are two soups one should be clear and other cream.

1.5 THE FUNDAMENTALS OF FOOD AND BEVERAGE SERVICE

The food and beverage services can broadly be divided into five different types of services which are largely dependent upon the factors like how the food is served, how is it served, what type of service is offered to the guest , where the food will be consumed and how the clearance for the served food will be done? Various types of food & beverage services are as follows:

Method of Service	How orders are taken / given	Type of Service	Dining/ consumption	Clearance
Table service	From menu	By staff to customer	A laid cover	By staff
Assisted service	From menu, buffet or passed trays	Combination of both (staff and customer)	Usually at laid cover	By staff
Self-service	Customer selects items onto a tray	Customer Carries himself	Dining area or take away	By staff
Single point service	Orders at single point	Customer Carries himself	Dining area or take away	Various
Specialized or in situ service	From menu or predetermined	Brought by staff to customer	Served where the customer is located	By staff or customer himself

Table: Types of Food & Beverage Service

1.5.1 Table Service and Its Types

Table service is a type of service wherein the customer is served at a laid table. This type of service, which includes plated service or silver service, is found in many types of restaurant, cafes and in banqueting. There are different types of Table Service which are classified as below:

English Service / Silver Service

This usually includes serving food at the table. It is a technique of transferring food from a service dish/platter or flat to the guest's plate from the left. It is performed by a waiter usually using service fork and spoon, although occasionally two forks, two fish knives or some other type of specialist service equipment. This technique requires much practice. It is almost always used, for a banquet, in many top class hotels, restaurants and cruise liners. The food is always served to the guest from the left side of the guest using a service fork and spoon.

French Service / Butler Service

A very exclusive and personalized service in which emphasis is on the presentation of the food as much as is on the quality and taste. The food is individually presented on dishes, platters or flats to each customer by staff and they help themselves from a serving plate held by the waiter (butler) or can be placed directly on the table. It requires highly skilled staff and is found in luxury dining establishments. The food is always presented on the platter first and then the food is served to the guest from the left side of the guest.

American Service / Plate Service

This type of service is found in a wide variety of catering establishments and is probably the most common style of food service. Food is pre-plated in the kitchen and served to customers, sometimes under cloche/plate covers which are removed in front of the guests. The advantages of this type of service include the maintenance of food presentation and portions, and the possibility of a faster turnover of customers. The food is always served from the right side of the customer. Dishes are prepared and decorated in the kitchen and then served directly.

Russian Service

It is a manner of dining that involves courses being brought to the table sequentially. The table is laid with food and the customers help themselves. The food is prepared and portioned in the kitchen and placed on to silver salvers which are then brought into the restaurant. Food is served from the platter to the plate.

Family Service

It is a service where a butler is involved in helping the guest to conduct the service smoothly. The bowls and the platters are brought on trolleys or trays kept before the host to portion out and carve the items and holding the plate for him to place the food and serve as directed. The first portion is offered to the Head Lady of the family followed by other members. The butler takes the trolley around for second helpings. Clearing is done side by side. It is a very informal and private kind of service which normally does not exceed 15 – 20 people. It is customary for the host to show his closeness and favorites through his portions offered.

CHECK YOUR PROGRESS -IV

Q.1 What do you mean by self service?

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Q.2. What do you mean by Russian Service?

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Q.3 What do you mean by French Service?

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1.5.2 Taking Bookings for Table Service

Most of the organizations will go a step ahead to capture the share of market. Many of the food and beverage establishments extend the facility of making prior bookings to its guests. Various modes of booking might include bookings through telephone, fax, emails or in person. The person responsible, Restaurant Hostess, should be good and efficient enough to take the bookings perfectly as this particular moment is often the first contact point of the potential customer who might make an impression in his mind just by interacting with the staff while giving bookings. The reservation process includes accepting table reservations for lunch and dinner over phone. It lists the various steps to be performed while taking a reservation along with the standard phraseology to be used. The process also details the procedure for taking cancellations and reconfirming reservations.

Procedure for Taking Booking over Telephone

While taking booking over telephone, the following procedure must be used:

1. The telephone should be answered within 3 rings or 15 seconds.
2. Employee should answer the phone with the appropriate greeting and identify the department or restaurant.
3. Employee should obtain the guest's name and use it at least once during the conversation.
4. Employee should obtain relevant details required for making reservation for e.g. the number of people dining, dining time, telephone or room number and smoking or non smoking preference.
5. Employee should repeat and confirm the details.
6. Employee should thank guest and indicate that he or she looks forward to welcoming the guest.

Phraseology for Taking Booking over Telephone

While taking telephonic bookings, the following phrases should commonly be used:

1. **Answer the telephone within 3 rings.**
   "Good morning/ afternoon/ evening <Name of the Restaurant>" How may I assist you?"
2. **If the guest requests to make a reservation. Ascertain the date and meal period for the reservation.**
   "Sir/ Madam the reservation is for which date?"
   "Would you like a reservation for lunch or for dinner?"
3. **Ascertain the guest's name.**

"Would you like me to make the reservation under your name, Sir/ Madam?"
If yes, ascertain the guest's name.
"Sir/ Madam may I please have your name?"

4. **If the reservation is to be made under any other name, ascertain the name of the person in whose name the reservation is to be made.**
"Sir/ Madam, under what name should I make the reservation?"
5. **If the name is not easy to spell, request the caller to spell the name.**
"Sir/ Madam, could you please spell the name for me?"
6. **Check the number of guests expected.**
"How many guests would you like me to make the reservation for?"
7. **Check for availability for the requested date and time in the reservation register.**
8. **If the table is available. Ask for table preference.**
"Would you prefer a smoking or a non – smoking table?"
In case only one of the two is available, inform the caller.
"We have only a <smoking/ non-smoking >table available. May I reserve the table?"
9. **Once guest has agreed to proceed with the reservation, request for contact details.**
"May I please have your contact number?"
Request the guest for his hand phone number (If applicable).
"May I please have your local hand phone number?"
If the booking is being made for another person.
"May I have Mr. /Ms. <guest's last name> contact number please?"
Note the bookers name and telephone number also in the reservation register.
Request the guest for his hand phone number (If applicable).
"May I please have your local hand phone number?"
10. **Enquire if there is any special occasion being celebrated.**
"Mr. / Ms. <Callers Name>. "Are you celebrating an occasion with us?"
If the booking is being made for another person.
"Sir/ Madam, is Mr. / Ms. <guest's last name > celebrating an occasion?"
If yes.
"Would you like us to make any special arrangements for the occasion?"
11. **Reconfirm the reservation with the guest.**
"Mr. / Ms. <Callers Name> I am pleased to confirm your reservation for <day> at <time> for <number of guests> person/ people in the <smoking/ non-smoking> section."
12. **Inform the guest about the table releasing policy.**
"Sir/ Madam I would like to inform you that we would be holding your table for 30 minutes from the expected time of arrival. In case a further delay is expected, please inform us in advance to hold your reservation."
13. **Inform the guest if the restaurant requires a specific dress code.**
"Sir / Madam, I would like to inform you that the Gentleman should be attired in full length trousers and shirts with sleeves."
14. **Inform the guests about the maid policy.**

"Sir/ Madam, in case your maid would be accompanying you, we would encourage the maid to be present in the restaurant along with you and not left by herself in the lounge/ lobby"

15. **In case the restaurant has a special feature inform guest about the same.**
"<Mr. / Ms. <caller name> to enjoy the complete <name of the restaurant> experience, we recommend you to come <X> minutes before the reservation time and sample some exquisite wines at our wine library."
16. **Thank the guest.**
"Thank you for calling <Name of caller>.We look forward to welcoming you at <Name of Restaurant>."
If the booking is being made for another person.
"Thank you for calling <Name of caller>.We look forward to welcoming <guest's last name> at <Name of Restaurant>."
17. **Make a note of the above details by a pen on the reservation register and strike off the table number on the reservation sheet. The employee must sign on the reservation register after entering all the details. Alternatively, if a table layout sheet is used, strike off the box representing the table number in the sheet.**
18. **If a table is not available for the date and time requested by the caller.**
"Sir/ Madam I regret to inform you that the restaurant is completely booked."
19. **Enquire if the guest may want to move the reservation to another day and/ or time.**
"Would you like to make the reservation for some other day/ time?"
If the guest agrees, perform steps stated from 8 to 17 above.
Alternatively, a tentative reservation can be taken to be confirmed at a later date.
"Sir/ Madam if you wish I can make a note of your reservation details and confirm the same to you by <date and time>, if any reservation gets cancelled."
20. **In case the guest declines, suggest alternate restaurants to the guest.**
"Sir / Madam, would you like me to make a reservation at any of the other restaurants at our hotel."
In case the guest agrees, provide the details pertaining to the name of the restaurant and type of cuisine.
21. **If the guest agrees to make a reservation at any of the suggested restaurants, direct the call to the other restaurant.**
"<Callers name> please allow me to transfer your call to <The restaurant desired>."
22. **In case the guest declines all other restaurants offered.**
"<Callers name> I apologise for not being able to accommodate you. We hope to welcome you at <Name of Restaurant> another time shortly, <wait for callers response>, Thank you. Have a nice day."

<Restaurant Name> RESERVATION REGISTER Date: <dd/mm/yy>							
S.No	**Guest Name**	**Reservation Time**	**No. of Covers**	**Smoking/ Non-Smoking**	**Contact Number**	**Remarks**	**Taken by**
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17.							

* *Table Nos. 11, 12, 14, 15, 16, 17, 18, 19, 20, …………………………*

\# *Strike the table number for which reservation is taken*

Figure: Format of Reservation Register

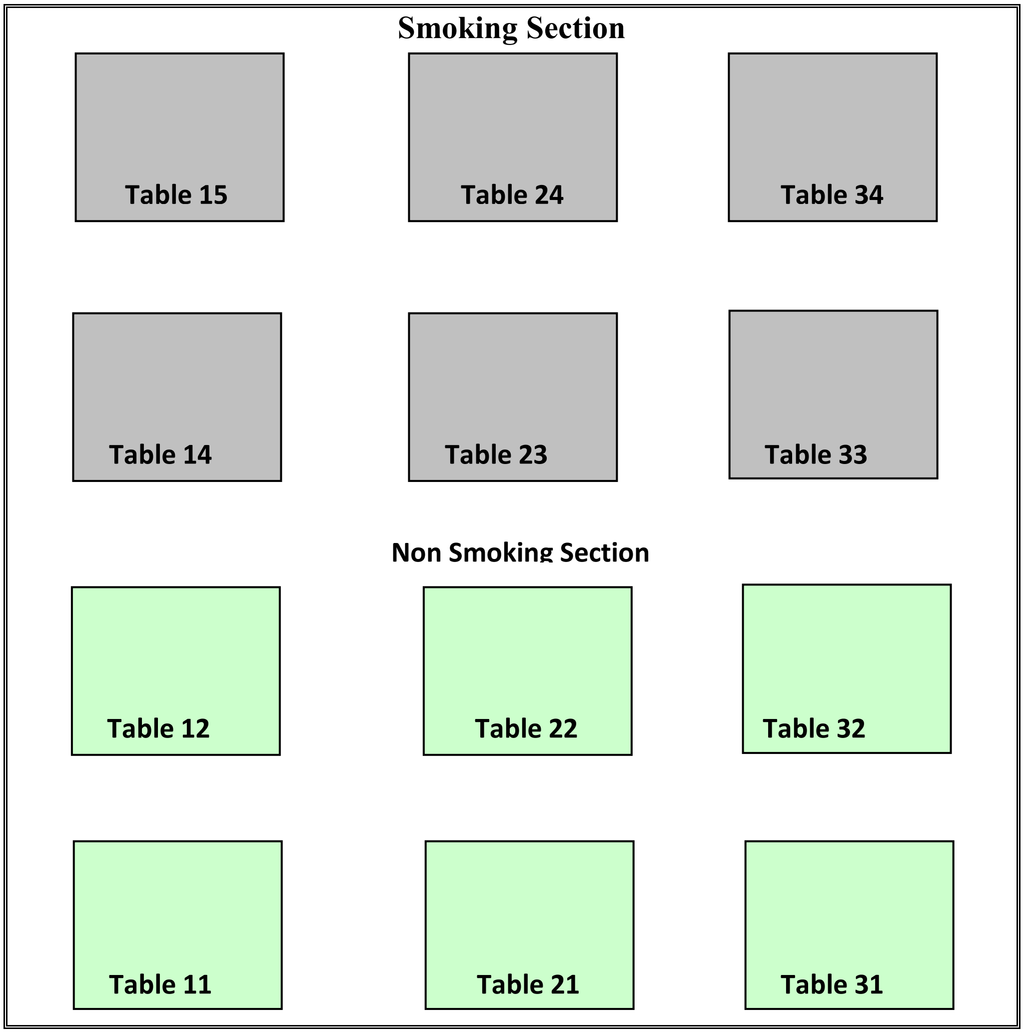

Figure Table Layout of the Restaurant

CHECK YOUR PROGRESS -V

Q.1 What is the procedure of taking table booking?

Q.2. What is the procedure of taking table booking over telephone?

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1.5.3 Preparation for Service

The outlet should be made ready before opening it up for customers so as to it more impressive and attractive to the guest. The preparations done before the opening also helps the waiting staff during the peak timings of the service when time just flies by. All restaurant undergo a daily exercise called as **Ménage** which means the procedure of preparing the restaurant to host guests, in a manner that is impeccable and enhances the guest experience. Ménage constitutes of **Mise en place** which literally means to put everything in place, be it equipment or pre-prepared food, in anticipation to serve and **Mise en scène** which means to put the scene or ambience of the restaurant in order.

Mise En Scène (Restaurant Setting)

The restaurant should be made ready for the service as per the following sequence:

1. The restaurant should be cleaned before opening for every meal period. Cleaning of the restaurant to be done as per the procedures and standards defined for Housekeeping department. Update Housekeeping checklist for the restaurant once cleaning procedures have been completed.
2. The restaurant lighting to be automated and pre-set to change as per the time of the day.

   If the restaurant lighting is not automated, the lighting levels must be clearly indicated.

3. Insert music CDs in the CD changer, and volume to be set at the standard established for the restaurant. The Music CDs should be changed as per the standard time interval.
4. Perform the following maintenance checks before opening for every meal period:
   - Lighting equipment
   - Table and Chair for repair and stability
   - Pillars and ceiling for paint job
   - Update Engineering checklist once all checks have been completed.
5. Ensure the side stations of the restaurant are stacked with the standard quantity of the items.
6. Ensure the beverage trolley (if any) is set up with the standard items to be placed as per the restaurant design specification. The bottles should be corked with a silver stopper.
7. For dinner service, place and light candles in case of dinner where required.
8. Switch on MICROS terminal if the same is not already on from the previous meal period.
9. Equip self with waiters kit: Standard wine opener, Standard waiter's pen (Click top), Note pad, White handkerchief (Plain/Striped) and Hotel match box.
10. Clean lunch/ dinner menus and place them at the storage space assigned in the restaurant. Discard dirty insert sheets and dog-eared menus.
11. Place the guest in house list, table reservations register and standard hotel pen at the host or hostess desk. Ensure the host or hostess desk is free of clutter.
12. Align tables to ensure that all tables and chairs are in their right positions and there is enough spacing between tables for guests to move around freely.
13. Adjust the ceiling spot light (if any) such that it falls over the flower vase on the table (wherever applicable).
14. Display special arrangements if any, as per the restaurant design specifications (e.g. Coffee beans, Fruit arrangements etc).
15. Ensure that the back area or service pantry is clean and appropriately stocked.
16. Set the buffet:
    - Buffet stage should be clean and free of any left over food particles.
    - Plates, bowls etc. should be stacked at a designated place. The restaurant logo (if any) should be at a 12'O clock position.
    - Place appropriate service equipment.
    - Place appropriate under liners under the service equipment/ cutlery.
    - Place name tags for non-vegetarian dishes and items which are not easily identified.
    - Place name tags for pork and beef preparations.
17. Set up Show Kitchen (Tandoor..if applicable) in the restaurant
18. Open Restaurant door and place the Lunch/ Dinner menu on the menu stand outside the restaurant. Place the notice board displaying the minimum age for serving alcohol outside the restaurant

Engineering and Maintenance Checklist			
S. No.	Description	Completed	Remarks
1	Are all lighting equipment/ bulbs in working condition?	▭	
2	Are all tables/ chairs steady and in good repair?	▭	
3	Are all power points/ plugs in working condition?	▭	
4	Are all wires properly tied/ hidden and not hanging lose?	▭	
5	Is the air conditioning unit in proper working condition?	▭	
6	Is the MICROS terminal, printer and EDC machine in proper working condition?	▭	

Figure– Engineering & Maintenance Checklist

Housekeeping Checklist			
S. No.	Description	Completed	Remarks
1	Are the carpet/ tiles clean and free of any dust/ debris?	▭	
2	Are the walls clean and free of any chips, scuffs or marks?	▭	
3	Are the mirrors polished and free of any smudges?	▭	
4	Are windows clean and free of any streaks or spots?	▭	
5	Are all plants and floral decorations fresh?	▭	
6	Are the furniture and fixtures dusted and free of grim and dirt?	▭	
7	Are all side stations/ other counters dusted and free of grim and dirt?	▭	
8	Are the display items dusted and clean?	▭	
9	Are all brass surfaces polished and wiped?	▭	
10	Is the upholstery clean and free of any food/ dust particles?	▭	

Figure– Housekeeping Checklist

Bar Stacking List				
S. No.	Item Description	Standard	Specification	Quantity
1	Liquor/ Alcohol bottles as per the bar display design specification	NA	NA	As specified
2	Clean Glassware (clean and without streaks) placed at their appropriate place/ chiller	Hotel Specific	As approved	
3	Ice bin filled with ice/ crushed ice	Hotel	As approved	

		Specific		
4	Mixers at their designated place	NA	NA	
5	Beer bottles/ cans at their designated place	NA	NA	
6	Wine bottles at their designated place	NA	NA	
7	Appropriate garnishes prepared (lemon slice and segments, cherry's, olives, orange slice etc)	NA	NA	

Figure– Bar Stacking List

S. No.	Item Description	Standard	Specification	Quantity
1	Clean and polished Cutlery: Forks, knives, spoons, tea spoons	Hotel Specific	As approved	As specified
2	Clean Crockery with no stains: B&B plates, bowls etc.	Hotel Specific	As approved	As specified
3	Folded napkins	Hotel Specific	As approved	As specified
4	Ashtrays with hotel matchboxes	Hotel Specific	As approved	As specified
5	Extra covers	Hotel Specific	As approved	As specified
6	Water jugs	Hotel Specific	As approved	As specified
7	Juice jugs (Breakfast only)	Hotel Specific	As approved	As specified
8	Pots for coffee (Breakfast only)	Hotel Specific	As approved	As specified
9	Water goblets (clean and without streaks)	Hotel Specific	As approved	As specified
10	Shot glasses	Hotel Specific	As approved	As specified
11	Place mats (for restaurant without table cloths)	Hotel Specific	As approved	As specified
12	Salt and pepper cruet sets (full and non-greasy from outside)	Hotel Specific	As approved	As specified
13	Pepper miller (filled and non-greasy from outside)	Hotel Specific	As approved	As specified
14	Preserves/ Honey/ Ketchup/ Other condiments	Hotel Specific	As approved	As specified
15	Straws and swizzle sticks	Hotel Specific	As approved	As specified
16	Sugar sachet holders	Hotel Specific	As approved	As specified
17	Coasters	Hotel Specific	As approved	As specified
18	Crumbing set	Hotel Specific	As approved	As specified
19	Check folder with corporate branding	Hotel Specific	As approved	As specified
20	Stationery: KOT pads, pre-approved note pads, check stationery, hotel pen, comments card	Hotel Specific	As approved	As specified

Figure– Side Station Set up List

1.5.4 Mise En Place

It is discussed as under:

- Table setting
- Equipments for service

Table Setting

The table should be made ready for the dining as per the following details:

1. Check the table for wobbling.
    a) Check the table applying force on each corner.
    b) Adjust the table by adjusting the screws in the base of the legs of the table or making use of corks of old wine bottles to balance the table. Pre cut corks of 2mm and 4mm size should be readily available to balance the table.
    c) Adjust till the table is stable.

2. Lay the table cloth.
    a) To lay at table cloth, select a clean table cloth of the right size and quality.
    b) Fold the table cloth twice along the length.
    c) Drape the folded table cloth from the centre on your left arm. Approach the table and place the table cloth on the table.
    d) Position yourself between the legs of the table on any one side.
    e) Hold the table cloth placing the thumb on top of the inverted fold and the index finger below the fold, the middle is the first edge of the cloth which should lie between your index and middle finger and the second edge should lie between your middle and ring finger.
    f) Position the table cloth over the farthest edge of the table spreading out your arms as close to the farthest edge of the table as possible.
    g) Release the edge which is between the middle and ring finger dropping over the farthest edge of the table. The drop should be 12 inches from the edge of the table
    h) Release the inverted fold, releasing the first edge first by removing your thumb and index finger.
    i) Pull the table cloth towards you while holding the first edge of the cloth which is between your index and middle finger.
    j) Remove the crease on the top by using the back of your palm.
    k) For stubborn creases, use a steam iron to remove the crease.

3. Place the cloth Napkins (Book fold).
    a) Select a clean napkin by checking the quality and standard of the napkin required. It should be 21” x 21” in size.
    b) Lay the napkin unfolded on a flat surface in front of you such that hemmed edges face you.
    c) Fold the napkin into three parts equally, so as to get 3 rectangles, bring the top half of the napkin onto the middle half, then bring lower half as a flap to cover previous fold.
    d) Fold it into a book by folding the right hand side corner of the napkin inwards and then fold the left hand side corner by bringing it as a flap over the previous fold.

e) Overturn the napkin turning the side that was taking the surface towards you.

4. Place a B&B plate on the left of the cover and a fork on the right of the B&B plate such that the throngs of the fork face away from the guest.
5. Place an AP knife on the right of the cover with the sharp edge of the knife facing inwards. Place a AP spoon on the right of the knife.
6. Place a neatly folded napkin in the centre of the cover.

Check Equipment for Service

The following equipment needs to be checked before service to make sure it is:

- clean – if not, clean it or replace it before service starts
- working correctly – if not, report to your supervisor, get it fixed or remove it
- safe to use – if not, report to your supervisor, get it fixed or remove it.

1. Jugs and Glassware – Clean, polished and no chips or cracks.
2. Plates, Bowls, Cups and Saucers – Clean, polished and no chips or cracks.
3. Forks, Knives, Spoons and Other cutlery – Clean and polished.
4. Tablecloths, Overlays, Napkins and Serviettes – Clean, pressed and no marks or stains
5. Flowers, Vases, Candles and Placemats – Flowers are fresh, clean water, vases not chipped, Candles are new and no wax on candle holders, clean placemats.
6. Cruet Set, Chinese Cruet, Relish Plate, Sauce Boat, Butter Dish, Cheese Dish, Oil Vinegar Set – Containers are clean, Containers are topped up, good to use.
7. Menus and Wine Lists – Display Boards easy to read and updated, Table menus are clean and in enough quantity.
8. POS Equipment – Working and updated with any changes.

1.5.5 Sequence of Service

The *sequence* of service is the order we do things in for the customer. The sequence starts from the moment the customer walks into the restaurant and ends the moment they leave. Following the sequence of service makes sure that every customer gets the same excellent level of service. Here is a basic sequence of service. Each venue may have its own version.

1. Welcome and seat guests.
    - Welcome customers at the door with a big smile. This gives the customer a good first impression of your venue.
    - Check if they have a reservation or not.
    - *Escort* them (walk with them) to their seats.
    - Chair assistance to be first offered to the lady.
    - Remove extra covers from the table, if applicable.

2. Lap guests, serve water.

Help the customers get seated and *lap* them from the right hand side. Lapping means:

- Unfold the napkin.
- Refold it into a triangle.

- Hold it on one corner and place it across the customer's lap.
- Water preference to be asked before serving water. Automatically offer additional bottle of water upon completion of the first.

3. Present menus and wine list; explain menu including specials.
    - Always present from the right hand side within two minutes of the guest being seated.
    - The menu to be first offered to the lady (if applicable).
    - Mention any drinks specials or changes to the drinks list.
    - Should be able to comprehensively answer any questions regarding the menu and ingredients
    - Guest may ask for recommendations (what you think is good) and suggestions.
    - Recommendations should be based on the customer's needs.
    - Recommendations may include popular dishes based on the feedback.
    - Be patient and polite when answering a customer's questions.

4. Take food /drinks order, top up water, remove menus.
    - Ask if the guest wishes to order an aperitif or beverage, list only to be presented if requested by guest
    - Approach and greet the guest within 5 minutes to take the food order
    - Explain specials of the day and in the case of the buffet offer a brief description
    - Ladies order to be taken first
    - Maintain eye contact while taking the order
    - Repeat the order
    - Accommodate any reasonable off the menu requests
    - Obtain full and complete orders including cooking instructions and accompaniments
    - Thank the guest
    - Wine order to be taken within 2 minutes of food order
    - Waiter to be knowledgeable with regard to wines/beverages

5. Serve drinks.
    - Beverage to be served within 3 minutes of order being placed
    - Drink to be correctly garnished
    - In the case of a canned beverage it should be served from a glass carafe, glass carafe to be left on table
    - Beverages to be filled not more than 2 inches from the top of the glass or goblet
    - Handle glassware by the stem or base of the glass
    - Additional beverage to be offered within 2 minutes of glass being empty
    - Ladies to be served first
    - Ask if the guest would like ice in his/ her drink (if applicable)
    - All drinks to be served from a tray or salver
    - All drinks to be served in the correct glassware

- In case of mixed drink, swizzle stick or stirrer to be provided
- When guest leaves table, napkin to be folded neatly by employee and placed appropriately

6. Correct the cover if necessary (change the table setting for the food ordered).
A *cover* is a place setting at a table. When a customer makes an order, you may need to change the setting, for example:
    - if a customer orders soup, you add a soup spoon to their setting
    - if a customer orders steak, you replace the table knife with a steak knife.
    - This is called *correcting the cover.*

   Provide glassware and serviceware
    - Depending on what the customer has ordered, you may need to provide more glassware and *serviceware* (utensils to serve food) during the meal.

   Glassware
    - Most set tables have a wine glass and perhaps a water glass. Once customers have ordered drinks, you may need to:
    - remove glasses that are not needed
    - place any needed glasses.

7. Run entrées, if applicable.

8. Clear entrées and any unwanted or unused cutlery and crockery; top up water, ask about more drinks.

9. Serve main course.
    - The food to be presented in an appealing manner
    - The food to be served at the correct temperature
    - The texture and colour of the food to be acceptable
    - The portions to be of acceptable size
    - The food to be cooked as requested
    - Food to directly resemble its description on the restaurant menu
    - Guest to be informed incase of an expected delay
    - When guests leaves table, napkin to be folded neatly by the employee and placed appropriately
    - Starter to be served within 10 minutes
    - Main course to be served within 10 minutes of starter being removed or within 20 minutes if no starter was ordered
    - Correct starter/main course to be served to appropriate guest without prompting
    - When there are two or more people dining, all guest dishes to be served at the same time
    - Guest to be advised if plate is hot
    - Plated items to be served with as little disruption to the guest as possible
    - Plate crest to be positioned at 12’O clock position
    - Order to be correct and complete
    - Appropriate condiments to be automatically offered

- Condiments required to be ascertained and served in appropriate containers
- Cutlery to be changed to accompany order and in the case of buffet replace cutlery when empty plate found on table and guest not seated
- Table to be visited to ascertain satisfaction on the level of service

10. Clear main plates, side plates, salt and pepper shakers.
    - Dishes to be cleared within 3 minutes of all guests finishing their meals
    - Remove side plate, side knife, butter and cruets on completion of main course
    - Employee to crumb down the table if required

11. Give dessert menus, top up water.
    - After meal menu to be presented within 2 minutes of clearance of main course
    - The menu to be first offered to the lady (if applicable)
    - Employee to suggest post meal desserts or drinks

12. Take dessert, coffee and drink orders.

13. Correct cover for dessert, serve dessert and drinks.
    - Desserts to be served within 10 minutes of order being taken
    - Check on the KOT the cover number for each dessert, and place the respective order in front of each guest from the right and make sure not to inconvenience the guest at any time
    - In case plates have a restaurant branding on them, plates should be placed so that such branding is in the 12'O clock position. Announce the name of the dessert as it is placed on the table.

14. Clear table of everything not being used. Ask if guests want anything else.
    - Once the guest has finished with their dessert, seek permission to clear the dishes.
    - In case of multiple guests seated on the table, approach the table for clearance only once everyone on the table has finished their dessert. Clearance to be done on hand with a maximum of 3 plates cleared at one time.

15. Prepare and present guest with the account.
    - Acknowledge the guest request for check.
    - In case the guest has asked for the check from a distance, acknowledge the request by nodding the head in top-down motion.
    - Verify all the items charged in the system with the KOT. Close the check for the table in MICROS as per the procedures in the MICROS manual.
    - Place both copies of the check inside the flap of the right panel in the check folder.
    - Place the comment card inside the flap of the left panel in the check folder.

- Petit fours must be served in all restaurants at dinner service before presenting the check.
- Present the closed check folder to the guest.
- Leave the table for the guest to sign the check at his convenience.
- Wait for the guest to inform the settlement of the check.
- If the comment card has been filled, place it along with the other filled cards at the designated place in the restaurant. If the same has not been filled, leave the comment card with the guest.

16. Accept payment.
    - If payment is made through Credit Card / Debit Card, the signatures of the guest should be verified.
    - In case of payment by cash, exact change should be returned with the cash receipt.
    - If check is billed to room, guest name to be verified in MICROS.
    - If check is to be Billed to Company, guest name and company to be verified in records.

17. Farewell guests
    - Provide chair assistance to guests when they are ready to depart.
    - Stand behind the chair and firmly hold each arm/ each side of the chair. Bring the right foot forward, with the knee touching the chair. Lift the chair an inch from the ground and pull the chair back. Wait for the guest to get up.
    - The chair assistance to be provided in the order of Children, Elderly, Ladies, Others, Host (if known).
    - In case any kind of inconvenience had been caused to the guest during his visit to the restaurant, apologise to the guest at this stage once again.
    - Reset and relay the table with the standard procedure and a fresh table cloth.

1.6 PERSONAL HYGIENE, SANITATION AND FOOD SAFETY

"Delivering safe food to the dinner table is the culmination of the work of many people. Producers, shippers, processors, distributors, handlers, and numerous others perform actions every day that may affect the safety of our food. Everyone's challenge is to perform these individual actions as well as possible, so that the food Indians eat is free from physical hazards and dangerous levels of pathogenic microorganisms and hazardous chemicals." While every player in the flow of food from farm to table has some degree of responsibility for food safety, you are usually the last line of defense before food reaches the consumer. Because of this, you have a significant share of the responsibility for ensuring safe food. By voluntarily developing a food safety management system, you can better ensure that the foods served or sold in your establishment are safe.

Although employees have a legal obligation to ensure health, safety and security within the workplace , employees, colleagues and other persons are also responsible for taking these issues in hand.

Any health safety, hygiene and security issue such as burnt hand or a case of food poisoning must be reported immediately to the seniors in a recorded manner with the following columns

i. Date and time of accident
ii. Name of the person
iii. Nature and cause of accident
iv. Who were present nearby?
v. Reason of cause (if possible)
vi. Any remedial action if required

Food hygiene involves the following:

1**. Personal hygiene**

a. It is required that good hygiene systems are followed by all food handlers.
b. Have a shower at least once a day.
c. Always change the clothes you wear every day.
d. Never wear jewelry or timepieces on you during the working hours.
e. Have short trimmed hair. Women chefs are to cover their hair with nets
f. Shave even if there is a slight growth of facial hair
g. Keep your fingernails short and clean
h. Wear shoes that cover the whole foot not thongs or sandals to prevent accidents in the kitchen.
i. Wear clean, neat clothing that is not damaged or exposed to the skin and covers arms and legs to help prevent injury if there is an accident.
j. Always use clean utensils and never us utensils that have been used for raw food with cooked food.
k. Do not smoke near or around food preparation area.
l. Smoking is strictly prohibited at working area.
m. Always wear clean and sanitized protective clothing like chef coat, hat, apron trousers etc. while working in kitchen.
n. Wash your hands in between jobs with luke warm water and detergent. Pat it dry
o. See a doctor at least once a month to ensure you are disease free.

2. **Keep your hands clean**

- Wash your hands thoroughly with soap and water before handling any food items or utensils.
- Wash your hands before and after preparing food, especially raw meat, poultry and seafood and before handling cooked or ready-to-eat food.
- Wash your hands after:
    - Using the toilet.
    - Touching rubbish/bins.
    - Coughing or sneezing or caring for the sick.
    - Handling pets

4. **Keep food in the pantry**
- Keep foodstuffs such as coffee, tea, powdered milk and biscuits in clean, air-tight containers, away from heat and moisture.
- Check food storage cupboards regularly to ensure that it is free from insect infestation or contamination.
- Discard foodstuff that has been left open, or if there are signs of insect infestation or if it is beyond its expiry date. Where there has been insect infestation, clean up the storage area and food scraps and look for signs of the insects in the next 2 weeks.
- Do not store food in the same cupboard with the photocopying chemicals, cleaning agents or insecticide to avoid chemical contamination of food.

1. **Keep the pantry clean and tidy**
- Keep cupboards meant for food storage uncluttered and clean. Clean countertops and tables daily with soap and water and disinfect regularly.
- Change hand and dish towels daily. Damp towels promote bacteria growth.
- Clean up quickly after spilling food or drink before the residue become hard to remove.
- Dry kitchen utensils and containers thoroughly before putting them away.

Food safety when preparing food

Handling frozen food
- Do not thaw food at room temperature. It is safer to thaw food by defrosting overnight in the refrigerator, or by using the microwave oven.
- Do not hold marinated food at room temperature. Keep marinated food in a covered bowl in the refrigerator.

Handling dairy products
- Do not leave dairy products sitting at room temperature. Take only what you need to consume and return the unused portion to the refrigerator.

Handling vegetables
- Rinse all fruits and vegetables thoroughly in a basin of tap water to remove any dirt, bacteria or chemical residues.
- Soak the vegetables in a basin of fresh tap water for 15 minutes.
- Before cutting and cooking, rinse the vegetables once more in a basin of fresh tap water. Special detergents or washes for fruits and vegetables are not needed.
- Do not store ripe fruit with vegetables as ripe fruits produce ethylene gas that can cause green leafy vegetables to turn yellow.

After shopping
- Return home directly after your shopping. You may want to bring insulated containers/cooler bags complete with ice or ice packs for the storage of chilled, frozen and other perishable food when you go shopping.

- Do not store chilled and frozen food directly in the boot of the car as the heat may cause the food to go bad.

How to develop a daily hygiene routine: Cooked food is that commodity which deteriorates fast due to contamination and cross-contamination as a result they become a serious health problem for the workers and the customers. This results in bad name of the institution and has a negative impact on the business. Hence every establishment should pay extreme attention on the hygiene and sanitation of their workers and their work place and also on the purchase of ingredients, usage, and storage and service.

Every hotel worker should pay full attention on his/her personal hygiene and for which he/she should:

1. Bath every day with soap.
2. Should have trimmed nails in hand and feet.
3. Males should have nicely cut small hair and female with hair net properly tucked.
4. Beard properly shaved or trimmed or covered with net.
5. Wearing any kind of jewellery (except wedding ring) is prohibited.
6. Prohibit applying strong perfumes.
7. Wear neat, clean and spotless and odourless clothing.
8. Wash hand before entering the kitchen and moving out of the kitchen.
9. Do not spit or smoke in any part of the kitchen.
10. Wash hand after handling garbage or other soiled items.
11. It is strictly prohibited to sneeze, cough or itch in the kitchen.
12. Wear proper fitted uniforms.
13. Apply bandage or band-aid on any cut, bruise or burn part of the body.
14. Workers with contagious disease should restrict themselves entering the food place or in the hotel.

Food Handling and Storage

Cook your food well-The meal should not only be enjoyable but also safe to eat. Cooking at high temperatures (above 75^{o}C) will destroy most bacteria.

- Cook meat and poultry thoroughly. There should be no pink meat and the juices should run clear when the meat is pricked or sliced.
- Do not cook food partially as this increases the risk of bacterial growth.
- Cook seafood (like fish and cockles) thoroughly, especially when cooking for young children, people with illnesses, pregnant women and older folks.
- Keep hot food hot. Serve food immediately after cooking. Food to be served hot should be held at 60^{o}C or above to prevent bacterial growth.
- Reheat stored cooked food at temperatures of 75^{o}C and above to kill bacteria.

Using the microwave: If you use a microwave oven to cook, ensure that the food is evenly cooked. Otherwise bacteria may survive and cause food poisoning:

- Watch out for 'cold spots' in the food. Stir the food midway while cooking to ensure that the whole dish is evenly cooked.

- Use a covered dish. Arrange the food uniformly and add a little water. Under a cover, the steam formed will help kill bacteria and ensure even cooking.
- Always follow the food manufacturer's instructions on the waiting period after food is cooked in the microwave oven, to ensure that the temperature is sufficient to kill all bacteria. When reheating cooked food, cover the food to hold in the moisture and promote safe, even heating.
- Reheat food till it is steaming hot before removing.
- Use only microwave-safe containers. Never use recycled butter or cheese containers as these may melt and cause chemical contamination to your food**.**

Thawing- a process of bringing frozen food to normal temperature

- As far as possible, thaw meat without opening the package to prevent contamination, dehydration and absorption of foreign flavours.
- Thaw only the amount required.
- Place the frozen meat in the refrigerator or use the microwave oven to thaw meat safely.
- In general, the time required for thawing 500g of frozen meat is as follows:
  - Refrigerator: overnight
  - Microwave oven: 3 - 5 minutes

(Note: thawing times vary with size, thickness and shape of meat.)
Do not refreeze meat that has been completely thawed as it may cause deterioration in quality. Improper handling and refreezing of meat may lead to growth of bacteria to levels that can cause food poisoning.
Instead of freezing unused portions, keep them chilled in the refrigerator for up to two days. Alternatively, extra portions can be cooked first and then stored chilled or frozen until the next meal. Remember to separate raw meat from cooked or ready-to-eat food to prevent cross-contamination**.**

Food safety when storing food:

- Keep cold food cold.
- Keep food outside of the temperature danger zone (between 5oC to 60oC), where bacteria multiply quickly.
- Keep cold food cold in the refrigerator, or on a bed of ice until it is time to serve.
- Store dried food in a cool, dry place

Dried and preserved food should be stored in a cool and dry place, or kept in the refrigerator to prolong the shelf life. Warm and humid conditions can cause dried food to turn moldy and rancid at a faster rate.

- Nuts can keep better and longer in airtight containers when stored in a cool, dry place away from light. It is best to keep them in an enclosed cupboard or in the fridge.
- Mouldy food should be discarded as it may contain harmful mycotoxins.
- Transfer dried foods that are bought loose or unused contents of opened packages of dried and preserved foods to airtight containers.

- Dried and preserved foods that will be kept for extended periods should be stored in packaging that does not allow entry of air or water vapor into the package to prevent rancidity or moldy growth of food.

Storing

- Store frozen meat in the freezer at -18^{o}C.
- For storage of frozen meat in larger packaging, thaw the meat just enough (to about -10^{o}C) to separate into smaller portions, then deep freeze in individual packs.
- Ensure there are sufficient space in-between items placed in the freezer or refrigerator so that cold air can circulate freely around them.
- Do not open refrigerator or freezer doors more often than necessary to minimize temperature fluctuation.
- Do not overstock your meat supply. Follow the rule of first in–first out, i.e. use older stock first.

Pest Control and Fumigation

A pest is simply an animal whose interest is some way to conflict with the interest of man. The aim and objective of pest control is:-

a) To minimize the number of pests.
b) To minimize the images, inconvenience and distress they cause.
c) Eliminate the human diseases they may transmit.
d) We can design constant and maintain building in such a way that pest are denying and harbourage.
e) We can store food stuff and disposed of waste in such a way as to deny food supply to paste.
f) We can apply various chemicals to kill the pest.
g) We can and must educate people in or in other activities.

Dealing with rodent infestation: Rats and mice are more like to be found in kitchens and dining room than in bed rooms, scraps of food, candles, soap, etc.
There are three main ways of destroying them:-

- Trapping
- Fumigation
- Poisoning

a) **Trapping**- Generally wire cages traps are used for this purpose, traps should be placed in those areas where rodents are seen, but this effective only when the number of rodents present in small number. Rats are very coming creatures and will ignore the route. Where they will see their male caught in traps.
b) **Fumigation**- is a method of pest control that completely fills an area with gaseous pesticides—or fumigants—to suffocate or poison the pests within. It is used to control pests in buildings (structural fumigation), soil, grain, and produce, and is also used during processing of goods to be imported or exported to prevent transfer of exotic organisms. This method also affects the structure itself, affecting pests that inhabit the physical structure, such as woodborers and drywood termites. This is very effective method of eradication of pests and should be carried with trained squad. This process

involves releasing of certain gaseous in air in closed areas like CO_2, Carbon monoxide, sulphur dioxide, etc.

c) **Poisoning**- Bats consist of an inner base to which some poison is added. The common bases are flour, bread & sugar, and the most common poison used is Barium Carbonate white arsenic, phosphorous.

Insect infestation: Insects are responsible for an enormous amount of food spoilage because of their breeding and feeding habits. It is always better to prevent insect's infestation to have control over it. Prevention is assisted by correct building design, efficient maintenance, and speedy removal of kitchen waste and rubbish & definitely with adequate ventilation.

Insect control: The main and most effective method of controlling the growth of insects is by the application of insecticides. These insect spray effect an organism in three ways which are as follows:-

a) Contract insecticides: They are absorbed via external surface of skin of insect.
b) Systemic insecticides: Here the organism will effect via alimentary canal.
c) Respiratory insecticides: Organism is affected via respiratory tract by inhaling toxic gaseous.

Fleas: These are common nuisance. They are usually transferred from animals to humans and then to the hotel kitchens. These cause disease called plague and typhoid. They can be controlled by effective periodical fumigation and vacuuming

Cockroaches: There are several species of nocturnal insect that spend most of the day hiding in cracks, around drains, or in other dark, secluded services. Two common species of cockroach are the German & the oriental. These are both large insects, though the oriental is the larger of the two by some margin. Adult oriental cockroach grows 20-40mm in length while German grows only 10-15mm in length. The oriental cockroach is more frequently found in cooler, less humid areas such as basement and drains. Cockroach carries food poisoning bacteria in their bodies and is responsible for spreading of dysentery and gastroenteritis. Contamination occurs when the insect comes into contact with food for human consumption. The female cockroach produces up to 8 purses like eggs cases at monthly intervals.

Silverfish: These are silvery gray insects that look like minute fish without fins. They are about 1cm or smaller in length. They are nocturnal insects, preliminary found in most areas, and feed on cellulose material such as paper and cellulosic fabric such as cotton, and keeping moist areas cleaned and treating with them insecticides will help rid of these pests. Pyrethrum and sodium fluoride Cristal are effective against silver fish.

Lice: These insects pest are attracted to human hair, they are gray and measure about 3mm each. The adult lice cling to hair with their hooks and their eggs called nits. Stick to hair and clothing, linen and upholstery. In hotel they may be left on pillows and upholstery and be easily passed from one guest to other. Lice causes irritating bites on the scalp and the scratching due to it may lead to infection. To prevent head lice pillow cases and head rest covers on chair should be changed and cleaned frequently. Head beards should be wiped daily. In case of any infestation the person should specially medicated shampoo for lice and other should not use the infected personal belongings such as combs and brushes, towel and cloths.

Ants: These insects generally invade in large number when they come in search of food, especially sweet substances. They enter through crevices and travel along a definite tract in a procession so that when runs are found, the ants can be systematically trapped at the point where they enter an establishment. If the runs cannot be found, the vulnerable areas must be implied of food, thoroughly cleaned, and borax which repeals them spread over the shelves until the ants cease to come and eventually go to find food elsewhere. If the nest is located, it can be destroyed by placing 2 tabs spoon full of carbon disulphide at the entrance.

Termites: These are social insects, like ants. They are also called white ants because of their appearance. They have caste system that consist of worker termites, solider and winged reproductive termites, including one or more queen and king termite. The queen termites create the colony by laying eggs of tending to the colony until enough insects are produced to take care of the colony. The two most common type of termite are dry wood and ground termites.

To prevent termites infestation, the soil should be treated before the construction of building with an appropriate termite killer fluid during construction, should not be allowed to come within 6 inch of ground. Wood impregnated with sodium arsenate should be used and surrounding areas of the ground be kept in contact with this chemical. Seal all cracks and crevices. In case of an infestation highly puncture kick out holes and inject appropriate insecticides into the holes. Saturates infested furniture with Ortho-die- chloro benzene. Finally wax and varnish all wood and coat with linseed oil to cover the pores old furniture may be drenched in kerosene before refinishing.

Mosquitoes: This transmits diseases such as malaria, filarial and yellow fever. As the life cycle of mosquitoes begin in male denote allow water to stagnate in and around the property repair and fill all pills and puddles. Cover drain and pour kerosene oil into this to prevent larvae from thriving these and growing into adult mosquitoes. Fine gauze on windows prevents the entry of mosquitoes.

An effective, eco-friendly method for the controlled of mosquitoes is the place pots of water around the property for a week or two during this time .the mosquitoes lay their eggs in the water before the egg can develop, however this water is discarded, killing the larvae.

Fumigation Process: Fumigation generally involves the following phases: First the area intended to be fumigated is usually covered to create a sealed environment; next the fumigant is released into the space to be fumigated; then, the space is held for a set period while the fumigant gas percolates through the space and acts on and kills any infestation in the product, next the space is ventilated so that the poisonous gases are allowed to escape from the space, and render it safe for humans to enter. If successful, the fumigated area is now safe and pest free. Fumigation is a hazardous operation. Generally it is a legal requirement that the operator who carries out the fumigation operation holds official certification to perform the fumigation as the chemicals used are toxic to most forms of life, including humans. Post operation ventilation of the area is a critical safety aspect of fumigation. It is important to distinguish between the pack or source of the fumigant gas and the environment which has been fumigated. While the fumigant pack may be safe and spent, the space will still hold the fumigant gas until it has been ventilated.

CHECK YOUR PROGRESS -VI

Q.1 Write a short note on Personal Hygiene.

Q.2. Write a short note on Pest Control.

1.7 HACCP

What is HACCP? HACCP, as you may already know, is an acronym that stands for Hazard Analysis Critical Control Point, a systematic, science based approach used in production as a means to assure food safety. The concept for HACCP was developed in the 1960's by the Pillsbury Company in consultation with the US National Aeronautics and Space Administration (NASA) and the U.S Army laboratories at Natick which developed microbial safety of food stuffs including physical and chemical hazards in foods. HACCP is therefore the most cost effective approach devised for ensuring the safety of food.

Definition: Management system which food safety is addressed through the analysis and control of biological, chemical and physical hazards from raw material production, procurement and handling to manufacturing, distribution and consumption of finished product.

From the above definition, HACCP is a food-related operation which considers the following points

1. Identify and assess hazards at every stage of operations, right from start to finish.
2. Determine the critical control points.
3. Establish the critical limit and procedure to monitor each critical control points, and
4. Establish corrective procedures.

It is a preventive and a continuous approach to food safety identifying examining, analyzing/evaluating and establishing corrective measures and controlling hazards at every stage of a food related operation.
Unlike traditional safety assurance programmes focused on identifying problems in the finished product, HACCP, a recent proactive, preventive technique, focused on identifying potential problems and controlling them during the design and production process itself.

Advantages of HACCP

- It is a proactive system for assuring safe production of food by emphasizing prevention rather than inspection;
- Addresses all types of hazards – microbiological, physical and chemical and reduces the risk of contamination;
- Focuses on identifying and preventing hazards from contaminating food
- Is based on sound science
- Permits more efficient and effective government oversight, primarily, because the record keeping allows investigation to see how well it is doing on any given day
- Places responsibility for ensuring food safety appropriately on the food manufacture or distributer.
- Helps food companies compete more effectively in the world market, and
- Reduces barriers to International trade by demonstrating conformance to international standards and regulations and requirements of overseas markets.

The other benefits of HACCP are:

A) Benefit to consumers

- Reduces risk of food borne diseases
- Increased confidence in food supply
- Increased awareness in basic hygiene
- Increase quality of life (health and socioeconomic)

B) Benefits to Industry

- Increased market access
- Reduction in production costs through reduced wastage and recall of food
- Increased consumer and government confidence
- Mitigating the business risk

C) Benefit to Government

- Improved public health
- Reduced public health cost
- Enhanced facilitation of International trade
- Increased confidence of the community in the food supply

Safe Quality Food (SQF) 2000 is a HACCP quality code designed specifically for business in the food industry.

THE PRINCIPLES OF HACCP: The 1997 National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) recommendations updated the seven HACCP principles to include the following: (Fig. 2J)

1. ***Perform a Hazard Analysis***. The first principle is about understanding the operation and determining what food safety hazards are likely to occur. The manager needs to understand how the people, equipment, methods, and foods all affect each other. The processes and procedures used to prepare the food are also considered. This usually involves defining the operational steps (receiving, storage, preparation, cooking, etc.) that occur as food enters and moves through the operation. Additionally, this step involves determining the control measures that can be used to eliminate, prevent, or reduce food safety hazards. Control measures include such activities as implementation of employee health policies to restrict or exclude ill employees and proper hand washing.

2. Decide on the Critical Control Points (CCPs). Once the control measures in principle no. 1 are determined, it is necessary to identify which of the control measures are absolutely essential to ensuring safe food. An operational step where control can be applied and is essential for ensuring that a food safety hazard is eliminated, prevented or reduced to an acceptable level is a critical control point (CCP). When determining whether a certain step is a CCP, if there is a later step that will prevent, reduce, or eliminate a hazard to an acceptable level, then the former step is not a CCP. It is important to know that not all steps are CCPs. Generally, there are only a few CCPs in each food preparation process because CCPs involve only those steps that are absolutely essential to food safety.

3. Determine or establish the Critical Points. Each CCP's must have boundaries that define safety. Critical limits are the parameters that must be achieved to control a food safety hazard. For example, when cooking pork chops, the Food Code sets the critical limit at 145 ºF for 15 seconds. When critical limits are not met, the food may not be safe.

Critical limits are measurable and observable.

4. Establish Procedures to Monitor CCPs. Once CCPs and critical limits have been determined, someone needs to keep track of the CCPs as the food flows through the operation. Monitoring involves making direct observations or measurements to see that the CCPs are kept under control by adhering to the established critical limits.

5. Establish Corrective Actions. While monitoring CCPs, occasionally the process or procedure will fail to meet the established critical limits. This step establishes a plan for what happens when a critical limit has not been met at a CCP. The operator decides what the actions will be, communicates those actions to the employees, and trains them in making the right decisions. This preventive approach is the heart of HACCP. Problems will arise, but you need to find them and correct them before they cause illness or injury.

6. Establish Verification Procedures. This principle is about making sure that the system is scientifically-sound to effectively control the hazards. In addition, this step ensures that the system is operating according to what is specified in the plan. Designated individuals like the manager periodically make observations of employees' monitoring activities, calibrate equipment and temperature measuring devices, review records/actions, and discuss procedures with the employees. All of these activities are for the purpose of ensuring that the HACCP plan is addressing the food safety concerns and, if not, checking to see if it needs to be modified or improved.

7. Establish a Documentation and Record Keeping System. There are certain written records or kinds of documentation that are needed in order to verify that the system is working. These records will normally involve the HACCP plan itself and any monitoring, corrective action, or calibration records produced in the operation of the HACCP system. Verification records may also be included. Records maintained in a HACCP system serve to document that an ongoing, effective system is in place. Record keeping should be as simple as possible in order to make it more likely that employees will have the time to keep the records.

The Use of HACCP as A Food Safety Management System: Since the 1960's, food safety professionals have recognized the importance of HACCP principles for controlling risk factors that directly contribute to food borne illness. The principles of HACCP embody the concept of active managerial control by encouraging participation in a system that ensures food borne illness risk factors are controlled. The success of a HACCP program (or plan) is dependent upon both facilities and people. The facilities and equipment should be designed to facilitate safe food preparation and handling practices by employees.

Fig.2J

Properly implemented, a food safety management system based on HACCP principles may offer you the following other advantages:

- Reduction in product loss
- Increase in product quality
- Better control of product inventory
- Consistency in product preparation
- Increase in profit
- Increase in employee awareness and participation in food safety

Implementation of HACCP

HACCP is a system that assists organizations to identify potential food safety hazards in the entire food supply chain and to take preventive measures for their control. HACCP focuses on the prevention of hazards rather than relying on end product testing. The following sequence of 12 steps, included in the guidelines developed by the Codex Committee on Food Hygiene, is the recommended approach to develop a HACCP programme.

Step 1: Assemble HACCP team: Set up a multi-disciplinary team that includes representatives from production, sanitation, quality control, food microbiology, etc. This team should be assigned specific segments of the food chain to be covered in the HACCP system, and be entrusted with developing a HACCP system as described from Step 2 onwards. Top management must give its full support to the team. If the required expertise is not available within the company, bring in help from a consultant.

Step 2: Describe product: Draw up a full description of the product for which the HACCP plan is to be prepared, including product composition, structure, processing conditions, packaging, storage and distribution conditions, required shelf life, instructions for use, etc.

Step 3: Identify intended use: Identify the intended use of the product by the end-user or consumer. You need to determine where the product will be sold as well as the target group (e.g. institutional catering, homes for senior citizens, hospitals, etc.).

Step 4: Construct flow diagram: You need to carefully examine the product/process and produce a flow diagram around which to base the HACCP study. Whatever the format you choose, study all the steps involved in the process – including delays during or between the steps from receiving the raw material to placing the end-product on the market – in sequence, and present them in a detailed flow diagram with sufficient technical data. In the diagram, you might also want to include the movements of raw materials, products, wastes, a plan of working premises, equipment layout, product storage and distribution, and of employee moves or changes.

Step 5: On-site confirmation of flow diagram: The HACCP team should confirm the processing operation against the flow diagram during all stages and hours of operation and amend the flow diagram if necessary.

Step 6: List all potential hazards associated with each step, conduct a hazard analysis, and consider any measures to control hazards: Using the flow diagram, the team should list all the hazards – biological, chemical or physical– that may reasonably be expected to occur at each process step, and describe the preventive measures that can be used to control such hazards (for example, the use of air curtains, hand and feet washing at entrance to processing areas, wearing of head gear, use of good manufacturing practices [GMP]/standard operating procedures [SOP]/ sanitation standard operating procedures [SSOP], etc.).

Step 7: Determine Critical Control Points (CCPs): You may wish to use a decision tree with "yes" or "no" answers to facilitate the determination of CCPs (See Annex A). When applying the decision tree, you need to remain flexible and use common sense to avoid, wherever possible, unnecessary control points throughout the whole manufacturing process. If you identify hazards at a step where control is necessary for safety and no preventive measures exist at that step, you need to modify the process at that step, or at an earlier or a later stage, to include a preventive measure. For example, in a slaughterhouse, covering carcasses with a sanitized cloth to prevent infection by flies is a preventive measure at the carcass stage, which substitutes for a preventive measure such as washing the prepared meat at the next stage, as it will not be possible to disinfect the meat at this stage, i.e., during cutting or mincing operations.

Step 8: Establish critical limits for each CCP
You need to establish critical limits for each CCP. They are normally derived from specifications included in the food legislation of a country or in national or international standards (e.g. moisture levels in milk powder, or pH level and chlorine limit in potable water, etc.). When limits are not taken from regulatory standards (e.g. frozen storage temperature) or from existing and validated guides of good manufacturing practices, the HACCP team should ascertain the validity of such limits relative to the control of identified hazards and critical points.

Step 9: Establish a system of monitoring each CCP: Monitoring is the scheduled measurement or observation of a CCP to determine conformance to its critical limits. The monitoring procedures must be able to determine loss of control, if any, at the CCP (e.g. improper control of the temperature that may lead to faults in the functioning of a pasteurization unit in a dairy plant). Monitoring for CCPs needs to be done rapidly, as they later relate to on-line processes, and there is usually no time for lengthy analytical testing. Physical and chemical measurements are often preferred as these can be done rapidly and can frequently indicate microbiological control of the product. The programme of observations or measurements should properly identify for each critical point:

- Who is to perform monitoring and checking;
- When monitoring and checking are performed; and
- How monitoring and checking are performed.

All records and documents associated with monitoring CCPs must be signed by the person(s) doing the monitoring.

Step 10: Establish corrective actions: The HACCP team should develop specific corrective actions and document them in the HACCP plan for each CCP in the HACCP system so that they can deal with deviations when they occur. Such corrective action should include:

- Proper identification of the person(s) responsible for implementation of a corrective action;
- Actions required to correct the observed deviation;
- Action to be taken with regard to products manufactured during the period when the process was out of control; and
- Written records of measures taken.

The actions must ensure, for example, that the CCP has been brought under control, that procedures or conditions that created the out-of-control situation have been corrected, and the food affected, disposed off safely, etc.

Step 11: Establish verification procedure: Develop a verification procedure to ensure that the HACCP system is working correctly. The procedure should include the frequency of verification, which should be conducted by a responsible and independent person. Examples of verification include auditing methods, random sampling and analysis, etc.

Step 12: Establish documentation and record keeping: The HACCP system requires efficient documentation and accurate record keeping. For example, hazard analysis, identified CCPs and their limits (including revisions, if any) should be documented. Examples of records are CCP monitoring records, records of deviation found and corrective action taken on them, etc.

FOOD PRE-PREPARATION HAZARD AND CONTROL RULES

Food Thawing- Thaw in the refrigerator. Thawing can also be done in the microwave followed by immediate cooking or in cold, flowing water. Alternatively, food / meat can be cooked directly from the frozen. If thawing, make sure the center gets thawed by testing with your thermometer for a temperature of above 32ºF before beginning the cooking process.

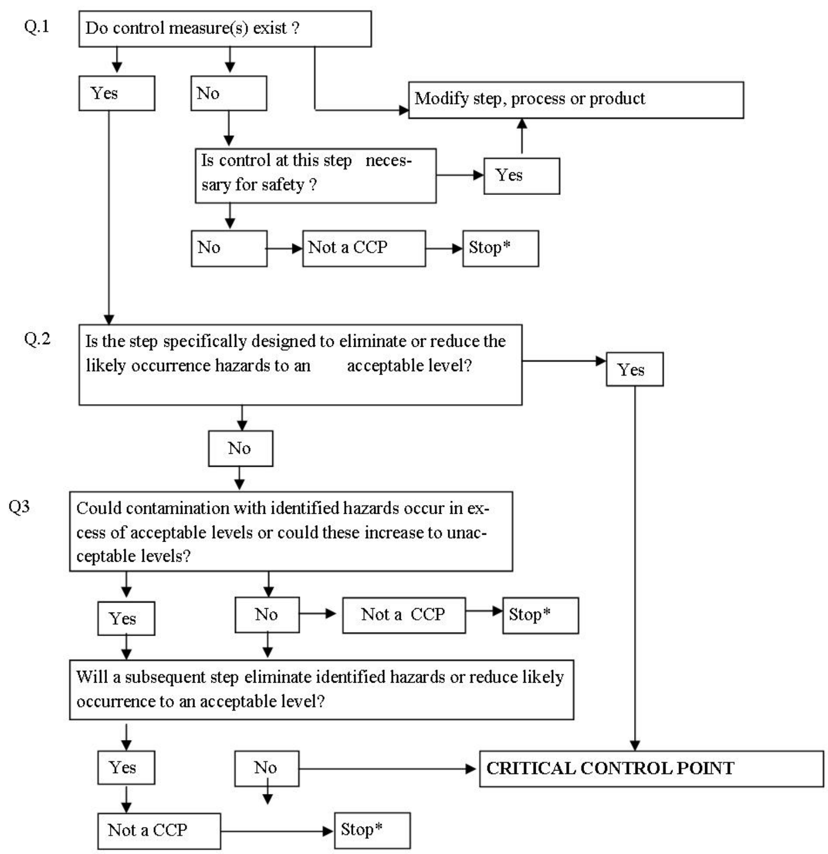
Food washing. All raw fruits and vegetables must be double washed before preparation. Take off the wrapper leaves and put the vegetables in the first wash sink with a lot of cold water. Agitate for 1 minute to loosen dirt. Remove from the first sink and put in the second sink with clean water and scrub / agitate again. Drain dry.

Serving raw foods. All raw food has some degree of pathogenic microorganism and chemical contamination. There is always a question as to the safety of raw food. The best prevention strategy is to buy from a safe source. A safe source can best be defined as one where personnel are knowledgeable about the hazards of the product and know the process used to assure the
safety of the food they sell. They can tell you what they have done to assist you in removing dirt and bacteria from the raw food.

Hard foreign objects. Be very careful to keep hard and foreign objects out of food. Keep can openers closed. Wrap spice and herb seeds in cheesecloth bags so they can be removed. Watch for bones. Remove all packaging material. Do not use staples or twist-ties. Always short through dry beans, lentils, etc. to remove grits and stones.

Ingredient control. Observe all ingredients as they are used in food preparation and reject any that are off-color, have strange odors, appear to have bubbles when they should not, show evidence of insects or rodents, or in any other manner appear to be below standard. If you have any doubt, throw it out. Before disposing of the food, record it on the waste control sheet and show it to your supervisor. Never use taste or smell to judge safety. Very hazardous food can smell and taste fine. Do not add fresh food to cold food.
Before disposing of the food, record it on the waste control sheet and show it to your supervisor. Never use taste or smell to judge safety. Very hazardous food can smell and taste fine. Do not add fresh food to old food.

Example of decision Tree to identify CCPs



* Proceed to the next identified hazards in the described process

Fig.2K

Allergenic ingredient control. The final step before any product is produced is to verify that the ingredients being used are exactly the ingredients that are specified; that the equipment food contact surfaces are clean; and there will be no ingredient cross-contamination from the last item produced. Separate raw and cooked food preparation equipment. keep raw and cooked food separate. Use separate cutting boards and knives for working with raw and cooked foods. Equipment with raw food contamination must not contact cooked food without first being cleaned and sanitized. Never store a raw product above a cooked product.

FOOD PREPARATION HAZARD AND CONTROL RULES

Cooking temperatures

Food items	Cook to this temperature or hotter
Poultry	165 ^{o}F
Ground/punctured meat, fish, eggs	155 ^{o}F
Solid cuts of meat, fish, eggs	145 ^{o}F
Roast beef	130 ^{o}F

Use a thermometer to check internal cooking temperatures.
Microwave cooking. Cover and cook food to ≥165ºF (stir or rotate the food during the cooking process), then let the food stand with cover on for 2 minutes.

Food tasting. Use a fresh, sanitized utensil each time food is tasted so that contaminants from the mouth will not get into the food. Roasts and thick foods. Once cooked, these food items will be kept at >130ºF.

Sauté and thin foods. A thin-stem, tip-sensitive, calibrated, digital thermometer will be used to assure that center temperatures meet pasteurization standards.

Sauces, soups, and beverages. Hollandaise and other egg and heavy cream sauces do not tolerate continuous 150ºF holding. Make hollandaise, béarnaise, and mayonnaise sauces with 1 tablespoon of vinegar or lemon juice per egg yolk, and they will have a pH of less than 4.1 and be safe.

Fruits, vegetables, legumes, and cereals. Many fruits are high- acid foods (pH <4.6) and are not a food safety problem unless mixed with meat, fish, or poultry items. Cereals and raw vegetables (carrots, potatoes, onions, cabbage, mushrooms, etc.) are contaminated with spores and before cooking and must be kept cold (less than 41ºF) or packaged to allow air exchange. After cooking, all vegetables, such as green beans, baked or boiled potatoes, and cereals, such as rice, will have activated spores and must be maintained above 135ºF or cooled to below 41ºF within 6 hours.

Bread, batters, and pastry. Bread and pastry dough are not as hazardous as other foods, because normally they are moderately dry. Care must be taken if a very moist product is produced. Icing and protein (milk and egg) fillings can be hazardous. These fillings must be cooled to 41ºF in 6 hours before using in items such as éclairs or custard pies. When a hazardous topping, such as an egg white meringue, is baked or browned, the center temperature of the meringue and temperature at the interface of the pie and meringue must reach 165ºF to kill *Salmonella*. The pie and meringue must be safely cooled to 41ºF. Cooked mixtures should be placed in cakes, shells, crusts, or other baked goods while still hot, above 165ºF, then the topping added, and the item baked or cooked. This controls contamination on the surface of the product.

Batters (such as pancake batter) held at room temperature shall be discarded after 4 hours of use.

Hot combination dishes. When cooked or precooked ingredients are combined and reheated, they must reach a center temperature of 165ºF in less than 2 hours.

Cold combination dishes. These foods are always a potential hazard. Wash, cook, cool, and prepare all ingredients separately and start with them at a temperature such as 41ºF, so that, when combined, the temperature is less than 50ºF. Adding the flavoring and spices in the sauce or dressing before mixing ingredients will help provide uniform flavor distribution. You can prepare large batches if the temperature is always below 50ºF, which controls the toxin production by *Staphylococcus aureus.* When preparing these items, always wash hands before starting and use sanitized utensils and containers.

Food Transport, Holding, and Serving Hazard and Control Rules

Hot holding. To keep food at 135ºF or hotter, preheat equipment to 135ºF or hotter before adding food.

Food serving temperatures. All foods served to customers shall be above 135°F (57.2°C) [150°F (65.6°C) for quality] or below 41°F (5°C) when they leave the service area. Improperly cooked, warmed, or held food, or food that shows signs of deterioration, is rejected.

Serving, packaging, transporting. Keep hot food covered as much as possible to maintain surface temperatures and prevent surface dehydration. Hot food must be above 135ºF or, if between 135 and 41ºF, served within 4 hours. If food is open on a steam table, buffet, or service line, the surface temperatures will be below 130ºF unless the pan is covered. Check on individual portions every 20 minutes, and casseroles at least every hour. Open, hot food should be discarded if not used within 4 hours.

Reheating for hot holding

- Heat food to 165ºF or hotter in 2 hours or less.
- Use a thermometer to check the temperature.

Beverage dispensing equipment. Make sure all beverages dispensing equipment is cleaned regularly, according to manufacturer's instructions.

Milk product dispensers. Thoroughly clean milk and milk product dispensers, such as soft-serve machines (especially the gaskets and O-rings.) Always sanitize them before they are put into use each day, and replace gaskets when damaged.

Salad bar. Ice in non-refrigerated salad bars shall be filled to the level of food in the containers. Ice is not needed in mechanically refrigerated salad bars. Cold food items must be cold (41ºF or less) before being placed in the salad bar, because salad bar units are not designed to cool food. Cold food items will slowly warm to about 55°F in the top layers in most salad bars. Therefore, leftover salad bar product shall never be added to fresh product beyond the safe time-temperature allowed. Some leftover salad bar items (e.g., carrot sticks, chopped onions, celery sticks) may be used in a recipe (stews or soups) in the kitchen.

Dispensing tableware and flatware. Tableware and flatware (both multiple use and single service) shall be dispensed in a sanitary manner so that surfaces that comes into contact with food or the mouth is protected from contamination. Handles of flatware shall be presented to the user. No unnecessary tableware is left on the table with the customer. All tableware left with the customer is washed before it is reused.

Self-service food, dishes, and utensils. The customer must not be allowed to return to a salad bar or buffet line for refill with used dishes. Take the dirty dishes and utensils, and give the customer fresh tableware and a clean plate for additional food. They can return with a used cup or glass for more of a beverage.

Food exposed to the customer. Serve customers only the amount of jelly, butter, bread, cream, etc. that they are likely to consume. All unpackaged food left with the customer must be thrown out. Packaged food such as crackers and jelly can be reserved. No unnecessary open food is left on the table with the customer.

Table condiments. Condiment containers shall be clean and uncontaminated, not open or abused, and shall be discarded replaced if they appear to be below standard. Individually portioned condiments may be provided for table service or counter service. Condiment bins shall be kept clean. Commercially packed condiment containers shall not be refilled. Ingredients in partially filled condiment containers may be sent to the kitchen for use in cooking.

Ice. Use tongs or a plastic or metal scoop to fill glasses with ice so that there is never a chance of a chip of glass getting mixed in the ice. Keep all glass (such as coffee pots) and other breakable ceramic tableware away from the ice bins or machine. Never reuse ice that has been in contact with food packages or used for displays. If you think that any glass or other contaminating material has gotten into the ice, throw it out.

Cooling food

Cooling hot foods
Cooked / prepared food shall be cooled from 135°F to less than 41°F in 6 hours or less (from 135°F to 70°F within 2 hours followed by cooling to 41°F or below within a total cooling time of 6 hours). . Use a thermometer to check this.

Quick cooling methods

1. Use shallow pans (for soups, sauces, gravies, etc.): This method can also be used for small-to-medium-sized pieces of meat.
    a. Put a 2-inch layer of food in a shallow, metal pan.
    b. Do not cover.
    c. Put the pan in the cooler where cold air can blow across it.
    d. Cover, label and date the food after it has cooled.

2. Ice bath
    a. Put the food container into an ice bath.
    b. Stir the food every 30 minutes—more often if possible.

3. Add ice instead of water (to soups, stews, etc.)
    a. Add only half the water before cooking.
    b. After cooking, add the other half as ice.

4. Use chilling wands or paddles (for large containers)
    a. Place the clean, frozen wand in the food and stir.
    b. Use another rapid-cooling method to finish, such as the shallow pan method described above.

Storage time. Food spoilage microorganisms can grow and continue to reduce the quality of cooked, cooled, ready-to-eat food while it is refrigerated. All stored food must be dated and rotated. The longer it is held, the lower the quality and customer satisfaction.

Storage containers. Single-use items such as plastic bread bags, seamed metal cans, ketchup bottles, crimped aluminum pie tins, and glass jars shall not be reused after original contents have been removed. Food (particularly high-acid food) shall never be stored, prepared, and cooked or processed in containers that contain toxic materials such as galvanized metal, chipped enamelware, lead and lead glazes, or copper.

Cold holding

Temperature- Keep food at 41ºF or cooler at all times.

Time

Foods prepared in the establishment: These foods can be served for up to 7 days after preparation if they are date labeled (see below) and stored below 41ºF.

1. Foods purchased in ready-to-eat form (e.g., sliced sandwich meat and hot dogs): These foods can be served for up to 7 days after opening if they are date labeled (see below) and stored below 41ºF.

Date labeling. Label a food with its preparation date if it is going to be held longer than 24 hours.

Freezing

1. This stops the 7-day clock, but does not set it back to zero.
2. Before freezing a food, label it with the number of days it was held after cooking or opening.
3. After thawing, the food can be served for the rest of the original 7 days.
4. If the food was not date labeled before it was frozen, serve it within 24 hours after thawing or throw it away.

Waste products.
Waste products are not stored in any storage area.

Your responsibility in the work place: Although employees have a legal obligation to ensure health, safety and security within the workplace , employees, colleagues and other persons are also responsible for taking these issues in hand. Any health safety, hygiene and security issue such as burnt hand or a case of food poisoning must be reported immediately to the seniors in a recorded manner with the following columns

- Date and time of accident
- Name of the person
- Nature and cause of accident
- Who were present nearby?
- Reason of cause (if possible)

CHECK YOUR PROGRESS -VII

Q.1 Write a short note on HACCP.

Q.2. List the advantages of HACCP.

1.8 Environment Concern

Solid Waste: Every food service institution produces solid waste otherwise known as trash or garbage, whether it is used tissue paper, potato chip bags, broken chinaware and glassware, food scraps from the dinner table, old appliances, or even the kitchen sink. This kind of waste primarily comes from restaurant, kitchen and other dining area of food service industry.

As the number of food service establishments has grown, so has the number of products we use and the total amount of solid waste we generate. Consequently, the composition of garbage continues to change with more plastics, more office paper, and less glass filling up trash cans around the country.

Foodservice businesses of every size and type contribute to the growing solid waste problems in the country, but most are doing at least some things to minimize what is sent to the landfill and down the sewer system. For the food service industry, there are several good reasons to reduce waste:

- ***It saves money***. Decreasing your waste output decreases the size of the Dumpsters you need and/or lengthens the time between trash pickups. You can also use composted materials on your outdoor landscaping, which saves fertilizing costs.

- ***It protects the environment***. Food waste that ends up in garbage disposals and/or landfills increases levels of odor and dangerous methane gas. Oil and grease from cooking and frying must be dealt with by your community's wastewater treatment plant.

- ***It complies with laws***. Increasingly, more stringent legislation is being passed to manage solid waste. Waste-intensive businesses, including restaurants, are being watched more closely with these new laws in mind.

- ***It has public relations benefits***. Taking responsibility for "doing your part" to preserve the environment and be a so-called green business is impressive to your customers, many of whom are taking similar steps at home by recycling and reusing items.

The integrated waste management system that can be adapted for different communities and different types of foodservice facilities, it includes several components mix that may suite to different types of food and beverage operations. The components of integrated waste management are:

- Source reduction
- Reuse and Recycling
- Composting

- Combustion or Incineration
- Landfill use

Source Reduction: Source reduction, also known as waste prevention, is the practice of designing, manufacturing, purchasing, or using materials (such as products and packaging) in ways that reduce the amount or toxicity of waste. Source reduction can help reduce waste disposal and handling costs because it avoids the costs of recycling, municipal composting, land-filling, and combustion.

Preventing waste before it is generated is a common-sense way to save financial and natural resources, as well as reduce pollution. That is why EPA encourages consumers, businesses, and governments to make source reduction their first priority in waste management practices. For waste that cannot be prevented, recycling and composting are the next best choices.

Waste is generated throughout the life cycle of a product—from extracting raw materials, to transporting materials, to processing and manufacturing goods, to using and disposing of products.

Source Reduction and Recycling Ideas for food service industry

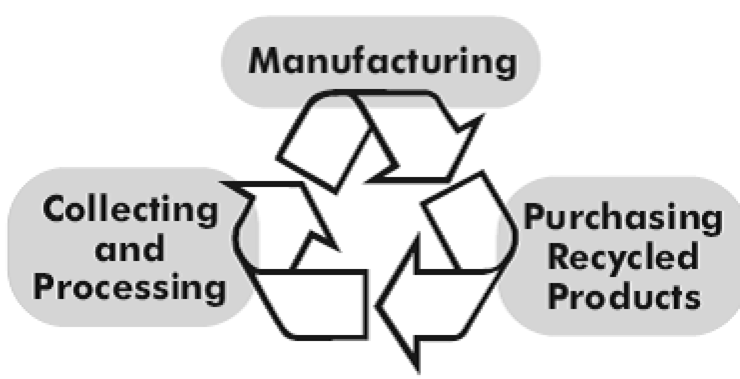
- Order condiments in bulk containers instead of single-serving packets.
- Use refillable containers for sugar, salt, pepper, and cream.
- Buy straw and toothpick dispensers instead of individually wrapped items.
- Use permanent coasters instead of cocktail napkins.
- Order items to be shipped in reusable containers such as tubs.
- Use linens for aprons, napkins, and restroom and kitchen towels.
- Use hand dryers in restrooms or cloth towels instead of paper.
- Design your menu cycles to improve the secondary use of leftover food (yesterday's chicken for today's sandwiches, salads, soups).
- Use reusable plastic pails or covered plastic containers to store foods.
- Switch to draft beer and fountain soft drinks over bottles and cans.
- Use chalk or marker boards instead of menu inserts to post specials.
- Purchase concentrated, multipurpose cleaning supplies.
- Use dishes and silverware instead of disposables, or use biodegradable plasticware.
- Don't store tomatoes and lettuce in the same container. The tomatoes naturally emit a gas that turns lettuce brown!
- Revive some types of wilting fresh vegetables by trimming off the bottom inch or so of their talk or core and standing them in warm (not hot) water for 15 to 20 minutes. This works with celery, broccoli, lettuce, and parsley.
- Offer discounts to customers who bring their own mugs for beverages.
- Minimize the use of take-out containers or use ones made from recycled paper.
- Use heat from refrigeration lines to preheat water for the water heater. It takes a load off of the condenser too.
- Check out the EPA's "Green Lights" program for a 30 percent lower electric bill.
- Set up an "ask for water" policy. Put a timer on the food disposal to save water.

- Turn organic waste into a rich soil supplement by composting.
- Make sure you're paying your hauler for full loads: Compact trash to maximize bin space.
- Cut trash-hauling fees in half by recycling cardboard. Baling eases labor and storage.
- Make sure recycling bins are well marked and paired with regular trash bins.

Benefits of Source Reduction: Reducing waste at the source is the ultimate environmental benefit.

- It means waste does not have to be collected, handled, or processed in any way, which prevents pollution, saves energy, and saves money.
- In addition, by reducing consumption, fewer products are manufactured, thus reducing the impacts that manufacturing can cause. For example, by manufacturing less, greenhouse gas emissions are reduced, which can make a difference in preventing global climate change.
- Preventing waste also can mean economic savings for communities, businesses, schools, and individual consumers.
- Many communities have instituted "pay-as-you-throw" waste management systems in which people pay for each can or bag of trash they produce that requires disposal.
- When food service establishments reduce their waste at the source, they create less trash and, consequently, pay a lower trash bill.
- Businesses also have an economic incentive to practice source reduction.
- Operating costs can decrease for businesses that reduce packaging, which can mean a larger profit margin and savings that can be passed on to the consumer.
- Buying products in bulk frequently means a savings in cost.

Recycling: Recycling is a series of activities that includes the collection of used, reused, or unused items that would otherwise be considered waste, sorting and processing the recyclable products into raw materials, and remanufacturing the recycled raw materials into new products. Consumers provide the last link in recycling by purchasing products made from recycled content. Recycling also can include composting of food scraps, yard trimmings, and other organic materials.



How Does Recycling Work? Many people already recycle items like paper, glass, and aluminum. While these efforts are a vital part of the process, the true recycling path continues long after recyclables are collected from household bins or community drop-off centers. Collecting, processing, manufacturing, and purchasing recycled products create a closed circle or loop that ensures the overall success and value of recycling.

Benefits of Recycling: When each part of the recycling loop is completed, the process helps both the environment and the economy.

- Recycling prevents materials from being thrown away, reducing the need for land-filling and incineration.
- In addition, the use of recycled materials to manufacture new products prevents pollution caused by the manufacturing of produces from virgin materials.
- Also, using recycled materials for manufacturing decreases emissions of greenhouse gases that contribute to global climate change.
- Since the use of recycled materials reduces the need for raw material extraction and processing, energy is saved and the Earth's dwindling resources are conserved.

Recent studies indicate that recycling and remanufacturing account for about 1 million manufacturing jobs throughout the country and generate more than $100 billion in revenue. Many of the employment opportunities created by recycling are in areas of the country where jobs are most needed. Jobs include materials sorters, dispatchers, truck drivers, brokers, sales representatives, process engineers, and chemists.

Composting: Composting is the controlled ***thermophilic (130º-150ºF) decomposition*** of organic materials such as leaves, grass, and food scraps by various organisms. Composting can be divided into three types: *backyard*, or *home*, *composting*; *vermicomposting*; and *heat-based composting*.

Home composting is the natural degradation of yard trimmings, food scraps, wood ashes, shredded paper, coffee grounds, and other household organic waste by naturally occurring microscopic organisms. ***Vermicomposting*** is the natural degradation of similar household organic waste using naturally occurring microscopic organisms and the digestive process of earthworms. ***Heatbased*** composting is performed by municipal or commercial facilities that increase the rate of degradation using high temperatures. Varying amounts of heat, water, air, and food produce different qualities of compost as a final product. Heat-based compost differs from compost produced at ambient temperatures (e.g., a forest floor or home composting) because high temperatures destroy both weed seeds and pathogens. Composts produced by all three systems are crumbly, earthy-smelling, soil-like materials with a variety of beneficial organisms.

Benefits of Composting: As a method of handling the large amount of organic waste created each day, composting makes good environmental sense. Instead of throwing organic materials away, they can be turned into a useful resource.

- In addition, many organic wastes are not ideally suited for disposal in combustion facilities or landfills.

- Food scraps and yard trimmings tend to make inferior fuel for combustors because of their high moisture content.
- Decomposition of organic wastes in landfills can create methane, a greenhouse gas that is environmentally harmful because it destroys atmospheric ozone.
- Compost is a valuable product that can be used as a soil additive for backyard gardens and farm lands or in highway beautification and other landscape projects. Composting can reduce a community's solid waste transportation, disposal, and processing costs.

Combustion: Recycling, composting, and source reduction are vital activities for effective solid waste management, but 100 percent of people's trash cannot be handled by these methods. The remaining waste must be deposited in landfills or combusted (burned). Because of limited space, landfills are not always a viable option in many cities, making *combustors* (commonly referred to as incinerators) an important part of a community's integrated waste management system. Burning garbage can decrease the volume of waste requiring disposal by 70 to 90 percent. Before the late 1970s, many people burned garbage in their backyards and in simple private and municipal combustors. These methods did not burn garbage completely, however, and allowed pollutants to escape into the atmosphere.

Landfill Use: A landfill is a large area of land or an excavated site that is specifically designed and built to receive wastes. Today, about 56 percent of our country's trash is disposed of in landfills (EPA, 2003). Items such as appliances, newspapers, books, magazines, plastic containers, packaging, food scraps, yard trimmings, and other wastes from residential, commercial, and some industrial sources can be disposed of in municipal solid waste landfills. Municipal solid waste landfills can also accept some types of hazardous waste, such as cleaning products, paint, and chemicals, as well as some industrial wastes from certain businesses. Many states and communities, however, promote the safe collection of these hazardous wastes through local programs.

Benefits of Land-fills: In addition to providing a cost-effective, safe method to dispose of ever-increasing amounts of trash, landfills often provide other services to the community. For example, some landfills collect methane, a gas created by decomposing garbage that can contribute to global climate change, and convert it into an energy source. In addition, after a landfill is capped and a certain amount of time has passed, the land might be reused for parks, ski slopes, golf courses, and other recreation areas.

Water conservation techniques and methods:

- Full tap opening should be avoided.
- Put the vessel under the tap and then open the tap.
- Close the tap before the vessel is removed.
- Washing of utensil clothes should be done in a bucket of water.
- Self-closing taps should be used at public places and water coolers.
- Children should be given knowledge about water conservation and should be instructed to follow the above instructions.
- Utilize soft water: reduce water requirements for cleaning purpose.
- Provide adequate pressure at fixtures for full water flow.

- Use threaded fittings for high water pressure.
- Reduce length of piping.
- Reduce number of fittings and valves.
- Increase thickness of insulation around the tank.
- Use larger diameter pipes if possible.
- Eliminate water leaks.
- Utilize solar water heater for the pool.

ENERGY MANAGEMENT

Management is the practical science, techniques and dynamic processes of setting/objectives (tasks), planning, organizing, arranging required resources, executing, supervising monitoring, and removing bottlenecks to achieve objectives and to set new objectives. Energy is important resource for development. Energy Management is ***"The judicious and effective use of energy to maximize profits (minimize costs)."***

Energy is the capability to produce dynamic effect like work, motion, and change in shape and so on. Real world definition of energy is defined as 'electricity, fuel, steam, heat, compressed air and other like media is better for our purpose.

- It exists in many form like mechanical, heat, chemical, electrical etc.
- Introduction of mechanical power is the beginning of machine age (industrial revolution).

The aims of energy management: The aims of energy management are:

- To achieve and maintain optimum energy procurement and utilisation.
- To optimize the present operations
- To minimize energy costs/ waste without affecting production and quality.
- To enhance energy security, economic competitiveness, and environmental quality.

Energy Management typically this involves following steps:

- Energy Strategy, Policy and Planting Administrative actions
- Energy Audit (Metering your energy consumption and collecting the data).
- Energy conservation opportunities (ECOS)
- Energy conservation Measures (ECMs)
- Implementation of ECMs.
- Monitoring of EC efforts (Tracking your progress by analyzing your meter data).
- Implementing staff awareness and training program.
- Regularly reporting the savings achieved. Feedback reinforces staff commitment and leads to successful energy management practices.

Energy:

- Most influential factor in shaping the present social structure.
- Basic requirement is food and next to food is energy as **development** depends on the availability of energy.
- Development of any Nation depends on the availability of Energy, Materials & Manufacturing Techniques.
- Development should be sustainable

Energy Conservation

Reduction in energy consumption without compromising on quality or lowering the production i.e. reducing losses and wastages. , it is possible to increase the production from a given amount of input.

Energy Conservation can be accomplished

- Recycling of waste
- Energy efficient technologies
- Waste heat utilization
- Judicious use of high grade energy
- Judicious use of energy commodity
- Cogeneration
- Change in habits
- Training manpower
- Proper operation and maintenance

Why Energy Efficiency and Conservation

Why Energy Efficiency and Conservation?

- Because total global reserves of oil are not going to last more than 30 to 40 years.
- Because oil prices will keep rising continuously.
- Because energy usage is directly related to Green house gases and causes global warming, climatic changes and environmental degradation.
- Because even coal reserves are limited to about 200 years.
- Finally, because high energy costs make industries less competitive

Energy Saving in Lighting

Points to keep in mind for Energy Saving in Lighting:

- Switch off lights while going out of the office i.e. no one in office or use occupancy sensor.
- Take maximum advantage of daylight.
- Avoid over illumination of the area. Remove lamps where you have more light than you need.
- Avoid using incandescent lamps (bulbs). Use energy efficient lamps as Compact fluorescent lamp (CFL), fluorescent tubes, LED. CFL uses only 20% electricity for same light output in comparison to bulb beside they last about 8 to 10 times longer in comparison to bulbs. LED lights consume about 10% electricity and last for 60

times in comparison to incandescent lamp. Life of LED is about 6000 burning hours.

- Use electronic ballast in place of magnetic ballast (choke) in the tube
- LED consumes less power in comparison to CFL but comparative to Sodium lamps.
- Relocate fixtures for improved luminance
- Avoid using one light switch to control many lights so as you can switch off unwanted lights.
- Use outdoor lights with timer switch/photo cell or CFL with photo-sensor or LED with photo sensor.
- Clean your light bulbs/tubes frequently to avoid reduction of light intensity due to dust accumulation on lights.
- Use focus light/ task light as table lamp at the place of work/ reading, instead of brightly lighting the entire room and turn off general light wherever feasible.

Energy Saving Opportunities in HVAC

Points to keep in mind for Energy Saving Opportunities in HVAC:

- Accurate measure and control of temperature.
- Reduce Air conditioning Volume and Unnecessary heat Loads keep unnecessary heat (freeze, ovens) load out Use false ceilings
- Minimize heat load check and maintain thermal insulation insulate pipe fittings
- Use Landscaping (fountains, plantation) proper shading over windows
- use low emmissivity films, air curtains
- use low conductivity windows frame provide insulation of sun facing roof and walls
- provide evaporative roof cooling
- Use heat exchangers with higher heat transfer effectiveness plate heat exchangers, avoid air cooled condenser
- provide evaporative roof cooling
- Make use of Building Inertia
- Put HAVC system on timer or Occupancy Sensor
- Interlock fan coil unit in hotels with door lock
- Improve utilization of outside air
- Maintain proper coolant
- Timely cleaning of heat exchangers
- Balance the system to minimize flow and reduce pump power consumption
- Proper and timely maintenance

Energy Efficient Building Design

- Energy efficiency needs to be considered at every stage of the design, construction and operation of a building.
- Energy efficiency should be considered from the beginning of the life of a building.

- Building should be compact and inward facing to reduce surface areas exposed to solar radiation
- Large surface be oriented North-South, as these will receive the lowest solar radiation. West facing surfaces are the most critical as peak solar radiation intensity coincides with the highest temp. in the afternoon
- Most commonly used rooms should face South
- Windows should preferably be on the South side of the house to ensure that sunlight entering the house warms the floor in winter
- Access to cooling and dust free winds should be promoted
- Small, enclosed courtyards can be designed to create useable protected outdoor space.
- The shading of buildings and outdoor spaces is critical. Projecting roofs (Roof overhangs), Verandas, Windows (Window overhangs), Shading devices.
- The roof can be painted a light colour preferably white to reflect the sun's heat. Top of the roof (outside) can be painted with white ceramic paint as it is scratch proof and can reduce inside temp by about 5 to 8° C in summer and can increase the temp. by 2-3° C in winter thus improving comfort or reducing electricity consumption in air-conditioned rooms.
- Wide roof overhangs help to shade the walls, particularly those that face west, east and South.
- Windows: Glazing should be 20 to 40 % of wall area to provide optimum daylight in a building while avoiding unnecessary heat gain.
- Window shades can be provided to those windows that face direct sun, particularly those facing west, east and South
- Using curtain to shade the windows in summer, but allow sunshine into the house in winter
- When painting /re-painting external walls, light colors should be used for walls exposed to the sun.
- If floor finishes are being renewed, use those that are good conductors of heat, such as cement screed, tiles or slate and avoid carpets, particularly on the ground floor.

Tips for Energy Saving in cooling - Fridge

Tips for Energy Saving in cooling – Fridge:
For reducing energy consumption in a fridge following should be observed

- Make sure that the doors are always closed. Make sure your refrigerator door seals are air tight, otherwise heat will leak through born out seal.
- Ensure that the cooling system at the back of the fridge is always clean.
- If your fridge is too old, you may think for its replacement as it may consume more energy.
- Location of fridge is also important, it should be placed in such a way that it should have sufficient space at its back for air circulation and it should be placed in cool place away from sunlight.
- Don't put hot food in the fridge.

- Avoid frequent opening of fridge or keeping fridge open for a long time.
- If the fridge is not frost-free type or auto defrost type, then ensure periodic defrost of your fridge.
- Don't keep your refrigerator or freezer section too cold. Recommended temperature for fresh food compartment is 3° to 5°C and for freezer section is -15°C

CHECK YOUR PROGRESS-VIII

Q. 1. What are the methods of conserving water?

Q. 2. Write a note on Environment concerns.

1.9 Summary

Food service operations are continuing to improve and develop, together with advances and quality. The demand for food and beverages away from home has increased and, with a broader spectrum of the population eating out, customer needs are continuing to diversify. The industrial revolution helped the industry to develop in a more sophisticated manner as the disposable incomes of the common man increased and the demand forced the service providers to think of developing new ways to attract the wealthy individuals.

The same time period also witnessed the development of concepts of Bars / Pubs which were mainly targeted on the industrial workers and travellers. Eighteenth and the nineteenth century saw the introduction of component of luxury in its day to day activities and the basic facilities now got converted into luxurious places of dining offering the best possible delicacies to its clients. A fine dining restaurant, a dining outlet of accommodation sector, a roadside dhaba, a vendor at railway station or a chaiwala at footpath, all are a part of food and beverage industry. Therefore, it becomes imperative to segregate various sectors of catering industry i) on the basis of priority of service, and ii) on the basis of profit motive

The classical French Menu contains seventeen courses served in classical format or order of dishes. This format is used to lay out menus as well as to indicate the order of the various courses. The actual number of courses on a menu and dishes within each course depend on the size and class of the establishment, the structure of the French; Classical Menu is followed even for modern shorter menus. Nowadays a full French Classical Menu is rarely served except as special dinner or banquet menu. An “A La Carte Menu”, is a multiple choice menu, with each dish priced separately to give the guest choice to suite his or her tastes and budgets. Each course has a number of choices. Table d'hôte is a French phrase which literally means "host's table". It is used to indicate a fixed menu where multi-course meals with limited choices are charged at a fixed price. The classical French menu contains thirteen courses. Today, a menu of this size is hardly ever offered. But even today's shorter menus follow the structure of the classical French menus as far as succession of courses is concerned. They always start with something light to stimulate the appetite, build up to the main course, and then become lighter toward the end of the meal. Menu Planning means to compose a series of dishes for a meal. Composing a good menu is an art and it needs careful selection of dishes for the different courses, so that each dish harmonizes with the other. The menu planning process starts with the mission of the establishment and the consequent policies of the establishment. While a mission is a strategic goal to be achieved over a period of lime, policies are guidelines for action set by the owner or top management.

Table service is a type of service wherein the customer is served at a laid table. This type of service, which includes plated service or silver service, is found in many types of restaurant, cafes and in banqueting. Most of the organizations will go a step ahead to capture the share of market. Many of the food and beverage establishments extend the facility of making prior bookings to its guests. Various modes of booking might include bookings through telephone, fax, emails or in person. All restaurant undergo a daily exercise called as **Ménage** which means the procedure of preparing the restaurant to host guests, in a manner that is impeccable and enhances the guest experience. Ménage constitutes of **Mise en place** which literally means to put everything in place, be it equipment or pre-prepared food, in anticipation to serve and **Mise en scène** which means to put the scene or ambience of the restaurant in order. The *sequence* of service is the order we do things in for the customer. The sequence starts from the moment the customer walks into the restaurant and ends the moment they leave. Following the sequence of service makes sure that every customer gets the same excellent level of service. Here is a basic sequence of service.

HACCP, as you may already know, is an acronym that stands for Hazard Analysis Critical Control Point, a systematic, science based approach used in production as a means to assure food safety. The concept for HACCP was developed in the 1960's by the Pillsbury Company in consultation with the US National Aeronautics and Space Administration (NASA) and the U.S Army laboratories at Natick which developed microbial safety of food stuffs including physical and chemical hazards in foods. HACCP is therefore the most cost effective approach devised for ensuring the safety of food. Every food service institution produces solid waste otherwise known as trash or garbage, whether it is used tissue paper, potato chip bags, broken chinaware and glassware, food scraps from the dinner table, old appliances, or even the kitchen sink. This kind of waste primarily comes from restaurant, kitchen and other dining area of food service industry. The integrated waste management system that can be adapted for different communities and different types of foodservice facilities, it includes several components mix that may suite to different types of food and beverage operations.

1.10 Glossary

A la Carte Menu: An "A La Carte Menu", is a multiple choice menu, with each dish priced separately to give the guest choice to suite his or her tastes and budgets. Each course has a number of choices.

Aerobic—with oxygen. During the composting process, certain bacteria need oxygen to break down the mix of organic materials. This is known as aerobic decomposition.

Anaerobic—without oxygen. In a landfill, certain bacteria decompose organic materials without oxygen and create methane gas through a process known as anaerobic decomposition.

Ash (also combustion ash)—solid residue that remains after the combustion, or burning, of waste.

Backyard composting—the homeowner's practice of collecting leftover kitchen scraps (excluding meats and fats) and yard trimmings for decomposition in a private compost pile.

Bacteria—single-celled microorganisms. Certain types of bacteria break down organic materials (using an *aerobic* and/or *anaerobic* process).

Bedding—organic material, such as shredded newspaper, used to retain moisture and allow proper air circulation and drainage to provide a healthy environment for worms in a *vermicomposting* container.

Biodegradable—materials that can *decompose*, usually by bacteria or sunlight, into basic components. Most organic materials (paper, grass clippings, food scraps), under the right conditions, are biodegradable.

Breakfast Menus: Breakfast menus are fairly standardized. Most restaurants will offer a choice of juices, cereals, eggs to order, breakfast meats like bacon, sausages or ham, waffles or pancakes with maple syrup, for the sweet toothed. The bed and breakfast establishments generally serve a choice of breads, jam and marmalade, tea and coffee.

Brunch Menus: Are designed for the family or guests who wish to wake late. They are popular on holidays and weekends as also at vacation spots where the pace of life slows down. Brunches (which is a combination of breakfast and lunch), are spread well beyond breakfast hours. The brunch will have combinations of breakfast and lunch items to suit the mood and taste of the individual.

Combustion/Incineration—a rapid chemical process that produces heat, gas, ash, and usually light through burning. This process is one option for the *disposal* of *municipal solid waste*. It can also be used as a treatment or disposal option for hazardous waste. See *combustor*, *waste-to-energy*.

Compost—a crumbly, earthy, sweet-smelling mixture of decomposing organic matter (e.g., leaves, food scraps) created in a controlled, *thermophilic* environment that is often used to improve the texture, water-retaining capacity, and aeration of soil.

Composting—the controlled biological decomposition of organic material under *aerobic* or *anaerobic* conditions. Organic materials are broken down (*decomposed* by microorganisms) into compost, also known as *humus*. Composting can occur in a backyard bin, a pile, long *windrows*, or in a *vermicomposting* container.

Cyclic Menus: These are designed to offer frequent guests a variety. The cycle of menus can be on a daily, weekly or monthly basis. These menus may be found in downtown lunch restaurants frequented by a dedicated business clientele. Isolated resorts may offer cyclic menus to their guests who do not have anywhere else to go. Cyclic menus will require multi-skilled cooks, flexible purchase and production schedules.

Decompose—to break down into basic components, given the right conditions of light, air, and moisture; refers to materials such as food and other plant and animal matter.

Deforestation—the clearing and removal of trees from a forested area.

Dinner Menus: These menus are elaborate as guests have more time and leisure for eating. Dinner menus are an entertainment and people are willing to pay extra for these meals. Alcoholic drinks are an essential part of dinner menus. A well-stocked wine list is offered in addition to the dinner menu. Dinner menus will have house specialties and a real chance to sell their expensive items.

Disposable—products or materials that can be or are usually thrown away after one use or a limited amount of time. For example, used paper plates are disposable.

Disposal—refers to the process of throwing away unwanted materials. These materials are placed in a landfill or combusted rather than recycled, reused, or composted.

Dump—site where waste is disposed of in an unmanaged, uncovered area. Current landfill restrictions have made dumps illegal.

Effluent—waste material discharged into the environment; refers to the treated liquid *emitted* from a manufacturing facility or municipal wastewater treatment plant.

Emission—the discharge of gases or particles, such as from a smokestack or automobile engine.

Fixed Menus: A fixed menu is one which is used daily for a period of months or a year, like most restaurants. The restaurants that use such menus either have a large variety of items within each course or when the frequency of repeat guests is less.

Fumigation- is a method of pest control that completely fills an area with gaseous pesticides—or fumigants—to suffocate or poison the pests within. It is used to control pests in buildings (structural fumigation), soil, grain, and produce, and is also used during processing of goods to be imported or exported to prevent transfer of exotic organisms. This method also affects the structure itself, affecting pests that inhabit the physical structure, such as woodborers and drywood termites. This is very effective method of eradication of pests and should be carried with trained squad. This process involves releasing of certain gaseous in air in closed areas like CO_2, Carbon monoxide, sulphur dioxide, etc.

Hazardous waste—waste that is often produced in large quantities by businesses and industrial facilities that can be defined as *toxic*, *ignitable*, *corrosive*, or *reactive*.

Insect control: The main and most effective method of controlling the growth of insects is by the application of insecticides.

Insect infestation: Insects are responsible for an enormous amount of food spoilage because of their breeding and feeding habits. It is always better to prevent insect's infestation to have control over it. Prevention is assisted by correct building design, efficient maintenance, and speedy removal of kitchen waste and rubbish & definitely with adequate ventilation.

Integrated waste management—the complementary use of a variety of waste management practices to safely and effectively handle municipal solid waste. These practices include source reduction, recycling, composting, combustion, waste-to-energy, and landfilling.

Lunch Menus: Lunch menus can vary from elaborate meals or light meals depending on the purpose and culture of the guest. Business-persons prefer sandwiches, salads and soups due to limited time at lunch breaks or are weight-watchers.

Packaging—a cover, wrapper, container, or stabilizer (e.g., strapping or pallet) designed to store, transport, display, and protect a product and/or attract purchasers.

Poisoning- Bats consist of an inner base to which some poison is added. The common bases are flour, bread & sugar, and the most common poison used is Barium Carbonate white arsenic, phosphorous.

Primary Catering Industry covers those types of establishments which are designed and primarily operated for the purpose of serving food and beverage to its clients. For example, various types of restaurants, takeaways, dine-ins, F&B outlets of accommodation sector, etc.

Recycling—collecting, sorting, processing, and converting materials that would have been thrown away into *raw materials* used to make the same or new products.

Secondary Catering Industry covers those types of establishments where providing food and beverage service is not the primary activity of the organization. For example, hospital catering, institutional catering, transport catering, etc.

Source reduction (also known as waste prevention)—any change in the design, manufacture, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they become *municipal solid waste*. Source reduction also refers to the *reuse* of products or materials.

Supper Menu: The term 'supper is used in the European continent but it varies in purpose around the continent. It can be a light dinner for either early evenings or late nights. It can be filler between two major meals lunch and dinner or dinner and breakfast. A typical early evening supper meal can be a soup, meat dish with vegetables and a light dessert. A late night supper can consist of a sandwich with hot cocoa or fruit.

Table d' hote Menu: Table d'hôte is a French phrase which literally means "host's table". It is used to indicate a fixed menu where multi-course meals with limited choices are charged at a fixed price. Such a menu may also be called prix fixe ("fixed price").

Thawing- a process of bringing frozen food to normal temperature

Trapping- Generally wire cages traps are used for this purpose, traps should be placed in those areas where rodents are seen, but this effective only when the number of rodents present in small number. Rats are very coming creatures and will ignore the route. Where they will see their male caught in traps.

Vermicomposting/vermiculture—a method of composting using a special kind of earthworm known as a red wiggler (*Elsenia fetida*), which eats its weight in organic matter each day. Over time, the organic material is replaced with worm castings, a rich brown matter that is an excellent natural plant food.

Waste management—administration of activities that provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of waste.

1.11 References/Bibliography

- Lilicrap, D. and Cousins, J.; Food and Beverage Service; Eighth Edition, Hodder Education, London, 2010.
- Davis, B., Lockwood, A. and Stone, S.; Food and Beverage Management; Third Edition, Elsevier, New Delhi, 2008.
- Bhatnagar, S., K.; Managing Food & Beverage Operations, First Edition, Frank Brothers & Co., New Delhi, 2009.
- Bagchi, S., N. and Sharma, A.; Text Book of Food & Beverage Service, Third Edition, Aman Publications, New Delhi, 2012.

1.12 Suggested Readings

- Food & Beverage Management 3/e John Cousins, David Foskett & Andrew Pennington, Good Fellow Publishers
- Foodservice Management: Principles and Practices by June Payne-Palacio Ph.D. RD and Monica Theis, Prentice Hall Publishers
- Foodservice Management Fundamentals by Dennis R. Reynolds; Wiley Publishers

1.13 Terminal Questions

1. Write note on food service industry.
2. Explain various sectors of catering industry.
3. What do you mean by transport catering?
4. What do you mean by institutional catering?
5. Write a short note on the origin and development of the menu?
6. Classify the menu on the basis of meal time?

7. What do you mean by self service?
8. What do you mean by Russian Service?
9. What do you mean by French Service?
10. What is the procedure of taking table booking?
11. What is the procedure of taking table booking over telephone?
12. Write a short note on Personal Hygiene.
13. Write a short note on Pest Control.
14. Write a short note on HACCP.
15. List the advantages of HACCP.
16. What are the methods of conserving water?
17. Write a note on Environment concerns.

UNIT: 02
THE OPERATIONAL FUNCTIONS

Structure

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2.2 Objectives
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2.3.1 Factors Responsible For Purchasing In Food and Service Industry
2.3.2 Need of Purchasing or Principles or Objectives of Purchasing
2.3.3 The Purchasing Activity
2.3.3 The Purchasing Activity
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2.3.6 Standard Purchase Specification
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2.7.8 Layout of Kitchen
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2.7.8.2 Layout of Indian Kitchen
2.7.8.3 Layout & Placement of Cooking Equipments
2.7.9 Flow of Work
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2.7.9.4 Wash Up Areas
2.7.10 Production Planning & Scheduling

2.7.10.1 Production Planning
2.7.10.2 Production Scheduling
2.7.10.3 Duty Roster
2.7.11 Production Quality & Quantity Control
2.7.11.1 Production Quality Control
2.7.11.2 Production Quantity Control
2.7.12 Budgeting & Forecasting
2.7.12.1 Production Budgeting
2.7.12.2 Production Forecasting
2.7.13 Yield Management

2.7.14 Standard Portion Sizes
2.7.15 Standard Recipe
2.8 Beverage Provision
2.8.1 Objectives of a Beverage
2.8.2 Classification of Beverages
2.8.3 Non Alcoholic Beverages
2.8.3.1 Tea
2.8.3.2 Coffee
2.8.3.3 Nourishing Beverages
2.8.3.4 Hot Milk
2.8.3.5 Refreshing Beverages
2.8.3.6 Mocktails
2.8.3.7 Squashes and Cordials
2.8.3.9 Waters
2.8.4 Alcoholic Beverages
2.9 Events Conferencing & Banqueting
2.10 Summary
2.11 Glossary
2.12 References/Bibliography
2.13 Suggested Readings
2.14 Terminal Questions

2.1 INTRODUCTION

In this Unit you will learn the different methods applied for acquiring the ingredients in hotels, the different purchasing techniques, receiving, storing, controlling and serving without loss. All the methods are applied to minimize the loss incurred while procuring the raw materials. Pilferage and wastage of ingredients are the two main factors that affect the food cost of dishes and the profitability of a catering outlet.

This unit will provide in-depth knowledge about the purchasing procedures, receiving methods, storing of food commodities and issuing. Here you will also get knowledge about food costing, yield management and standardization of dishes served.

2.2 OBJECTIVES

While studying this unit you will be able to understand the following:

- The purchasing procedure of raw ingredients- types, skills required and control
- Receiving methods of the ingredients
- Storing the ingredients and the problems associated.
- Issuing the ingredients as per requirement.
- Food cost control procedure applied
- Yield management

2.3 PURCHASING

Sound purchasing will be reflected in quality, reputation and financial success of a food service operation. Good food and beverage service begins with high quality buying financial success depends upon the profitable sales which in turn depends on wise buying.

Purchasing in large for instance consists of specifying a product and placing an order. But the buying of food is a more complex task. Most of the foods service operations are not large and the chef, the manager or the owner does the purchasing. Even in medium sized operations, it is usually the Catering Manager or Ex. Chef who carries out the task of ordering and purchasing.

The primary task of purchasing is to obtain the best quality of raw materials, based upon the specifications established by each hotel at the lowest possible price. The objectives are achieved through purchasing are:

1. Procurement of material needed to achieve the desired quality and quantity.
2. Purchase of materials at the most economical price consistent with the desired quality and delivery schedules.
3. Development of dependable source of supply.
4. To study and analyze the market as to the condition of supplies, price trends etc.
5. To maintain complete records of the source of supplies.
6. To advice the management on the effectiveness of buying policies.
7. To develop and maintain an effective buying service.

2.3.1 Factors Responsible For Purchasing In Food and Service Industry

A Menu dictates operations needs, and based on this the buyer searches for a market that can supply the company. After the right market is located, the various right desired products available are then investigated and obtained. Other factors that might affect production needs include:

- Type and image of the establishment.
- Style of operation and service.
- Occasion for which the item is needed.
- Amount of storage available.
- Amount of finance available.
- Availability, reasonability, price trends and supply.
- Skills of the employees.
- Storage life of the product.

2.3.2 Need of Purchasing or Principles or Objectives of Purchasing

1. **To maintain supply**
   An adequate supply of goods will cause "stock out". If the operation runs out of key F&B items, sales will be less/ lost. Quantity, quality and frequent deliveries are the main objectives of the purchase department to ensure smooth and continue supply.

2. **Minimize inventory investments**
   Purchase must balance the needs to maintain adequate inventories of goods with the need to minimize the amount of money tied up in inventory. Food service operations expect their buyers to compromise by keeping the investment as low as possible. While assuring a continue flow of incoming goods in the necessary quantities and varieties. The operation demands for goods should be consistent with the purchase and the amount held in inventory.

3. **Maintain quality**
   Ensuring quality is the day-to-day task for all purchasing and receiving staff. Many difficulties arise including plan changes, seasonal fluctuation in quality, storage problems, variation in qualities between suppliers and change in delivery schedules. Quality is dependent on the operations standard and how effectively the management and the staff enforce these.
4. **Procurement at low cost**
   The buyer's aim is to get the highest quality for the lowest edible cost. The goal is the quality and the right price.

5. **Maintain competitive position with the suppliers**
   Although edible portion cost or quality for a specific range of products may be more or less uniform between one supplies and the next, In practice, suppliers may offer their services unevenly among the buyers thus effecting Edible portion cost. The food service operation receives less value of money on goods and service, which is not favorable positions to be in a purchasing staff, should be alert to these practices and take the action, if they become unacceptable

6. **Avoidance of duplication and waste**
   There should be a good coordination between the purchaser and the supplier in order to reduce food waste and duplication of procurement. For this the needs to be carefully justified and analyzed.

How the needs can be fulfilled?

The purchaser should have the technical knowledge as well as commercial skill to perform his functions effectively. The manager is responsible for hiring competent people and training and motivating his purchasing staff. Finally the purchasing staff is responsible for maintaining satisfactory relations with suppliers which all can be achieved by -

1. Knowing where the raw material is grown.
2. Knowing the season of production.
3. Knowing the approximate cost.
4. Interviewing sales representatives of the vendors.
5. Knowing the conditions of supply and demand.
6. Law and regulations governing the market and the products.
7. Advising the concerned departments on the availability of new materials and components which can be economically substituted for the existing ones along with the charges in the availability of the materials, delivery schedules etc. which are likely to effect the production schedules and costs.
8. Calling quotations from potential suppliers, collecting and analyzing quotations to find out the most favorable cost and terms conditions of purchasing and negotiating with the suppliers.
9. Placing order to the suppliers or supplier who offers the lowest prices and best terms and conditions.
10. Following up orders to ensure that supplies are received in time.
11. Scrutinizing and verifying the invoices received from the vendors.
12. Disposing the scrap, obsolete and surplus materials and equipments.
13. Co-coordinating the purchasing functions with production, product engineering, production control quality control and accounting.
14. Maintains records of supplies, orders, purchase materials and requisition.

15. The purchasing department is responsible for maintaining satisfactory relations with the suppliers, and his dealings with them affect the company's image.
16. Ability to store food in a manner that will enhance or maintain their keeping qualities.
17. Using perishable foods within two days of purchasing if used fresh.
18. Using the methods LIFO & FIFO.
19. Ensure that the items received are proper in proper packs.
20. Ensure that the items received are up to the highest level of hygiene and quality.

2.3.3 The Purchasing Activity

Purchasing food for an establishment is not a single activity, but it involves in a number of activities from knowing what to buy and what is the end use. The process thus requires interaction and coordination between the staff of user departments, suppliers, stores, accounts and inventory managers, depending upon the size of the establishment.

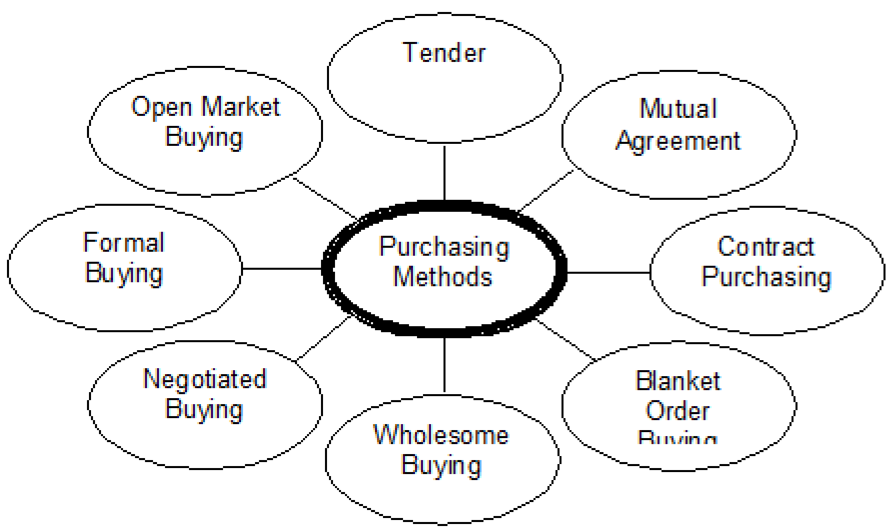


Fig. Purchasing Methods

Purchasing Methods

Within the hospitality industry, there are **eight** common methods of buying goods and services.

1. **Open Market or Informal buying-** This type of buying is done by individual establishments where the buyer invites quotations from the sellers for items according required specifications. The samples are selected on the basis of his samples, prices, delivery schedules and other services. Contract with the supplier is made personally in

the market. This type of buying involves for perishables like vegetables, fruits, milk, meat etc.

2. **Formal Buying** – involves in large establishments in which central purchasing system has been adopted, like schools, hospitals etc. this type of purchasing needs great deal of competitive bidding and so called as "competitive bid buying". Here sealed quotations are received from individual suppliers and then they are opened. The quotation which has lowest bid and that meets the requirement is accepted.

3. **Negotiated Buying-** involves negotiation between the buyer and the supplier regarding prices and quantity. This method is generally used for seasonal items which has limited supply, where both buyer and seller are keen that the product is lifted quickly. This type of buying is also called "mutual agreement buying". This type of buying is adopted mainly for purchasing food items directly from farmers or manufacturers where large quantity of items is to be procured.

4. **Wholesale buying**- In this method a contract is signed with a whole seller for purchase of goods at a specific price for a future period, along with quantities required and when.

5. **Blanket Order Purchasing-** It is an agreement to provide a specific quantity of listed items for a period of time at an agreed price. The advantage of this type of purchasing is that a variety of items for which frequent deliveries are required can be ordered with one source which may be an agent between the supplier and the buyer. This is the best method of purchasing for those items whose usage rate is not planned accurately.

6. **Contract purchasing-** this is also called system contract and is usually used by 5-star hotel chains. The techniques assist the buyer and the seller to improve ordering of materials which are repetitively, with minimal administrative expenses, while still maintaining control. This method is similar to Blanket order except that the arrangement is a long term one and the suppliers are not therefore changed frequently.

7. **Mutual agreement-**A mutual agreement with number of regular supplier of goods and services is common. In such an agreement the buyer has no control over the price of the goods and seldom has control over the quality of goods and services. The only plus factor for the buyer is the right to refuse to accept delivered goods and services if the suppliers default in quality, price and services.

8. **Tender-**These are the method of buying used by large operations. The purchasing officer compiles detailed formal product specifications, which may or may not include

the prices and forwards them to prospective suppliers. The suppliers will tender if they meet the quality.

The cheapest tender is not always best tender. This type of buying does not allow the buyer much control over the price of goods, however it does offer the buyer the fairest pricing because of the competitive market forces. Buying by tenders can be achieved by two methods: -

1. **Fixed tenders**- this is a formal contract between the suppliers and the buyer. It is suitable for large quantity of goods and services and specifies price, quality and period of time.

2. **Quotation calling**- this method of buying is suitable for fresh products, which is bought in quantities to last for 2-3 days. As for fixed tenders, buyers send formal product specifications to a number of suppliers, but in this case the price is not specified and there are no contracted obligations to buy.

Other purchasing practices may involve the following:

1. **Hand to mouth buying/ cash and carry-** can be adopted if its materials requirements can be fulfilled promptly from local or nearby markets, prices are steady and quantity discounts are not available and in case it is short of working capital or storage space and also in case when a company's product are in process of re-designing with the result that its materials needs may changed.

2. **Market purchasing**-is buying materials at a time when market price is lowest for them and there is high possibility of an upward swing in prices in future. It may also be pursues in case of materials whose demand is of a seasonal character.

3. **Hedging-**it is buying for now and delivery in future. Thus a firm anticipating a price rise may buy a given quantity of material of a specified quality and at contracted price for delivery in future.

4. **Speculative buying**-is purchasing in excess of normal requirement with objective of earning profit resulting from an anticipated price rise in future.

5. **Upstream buying**-involves research in the price of the raw materials, components and supplies for products which are still in the planning stage.

2.3.4 Buying Procedure (Step By Step) Tender Method

This method begins with the decisions to procure materials and ends with the approval of the vendors invoice for payments. It involves the following figure: -

1. **Receipt of Purchase requisition** in the purchasing department may be issued by the production control depts. or the stores or any of the various users depts. It contains details as to the materials to be purchased, quantity, quality specifications, time and place of delivery. It often contains a column to indicate the quantity on hand so as to force the requisitioned to think that the requisitioned items are really needed.

2. **Potential Source of supply**: After receiving the purchase requisition the purchaser manager looks for the potential source of supply, which he may find from his contracts, advertisements, trade journals, buyers guide, purchase agents and sales man contact etc.

3. **Issuing Letters to Invite Quotations**: which contains the full in formations regarding the materials required, Quality, quantity, delivery schedules, mode of payments, additional charges like fright, carriage etc.

4. **Receipt and Analysis of quotations**: after all the quotations are received, they are analyzed according to the specification and requirements.

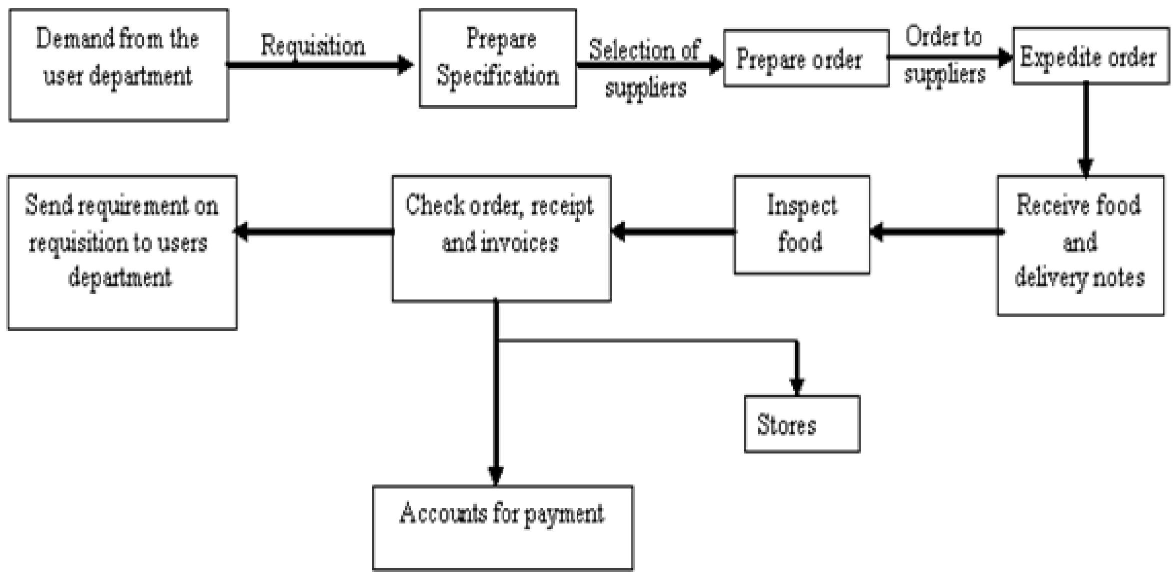
5. **Selection of Vendors**: The following criteria should be considered:
    i. Reliability
    ii. Capability
    iii. Willingness to accept the rejected items without any argument.

6. **Purchase order**: is issued by the purchase manager to the vender which contains the detail of items to be supplied – quantity, quality, price, time, and place of delivery. The purchase officer when accepted by the vender becomes a contract.

7. **Follow up and delivery**: The purchase manager follows up to ensure that the supplies are received in time and as specified. He can also impose penalty on the supplier for bad supply

8. **Analysis of receiving report**: Here the items are inspected according to the specification given by the buyer. **Scrutiny and approval of invoices**: The invoices received from the supplier are send to the purchase department for verification with

reference to the purchase order, inspection report and receiving report. Then it is sent to the account depts. for verification.



2.3.5 The Buyer

Job description: In order to hire a right person as Purchase manager, managers should have a clear understanding of the requirements of the position. This is easy enough in a small food service operation, especially when hiring a user buyer such as chef or Maitre de hotel. But in large operations it may be difficult to hire the right staff or even to identify some of the major purchasing tasks. A job description should clearly list all the major tasks responsibility, hours of work, remunerations and other benefits as well as preferred experience. A job description must reflect the range and scope of tasks that need to be performed for the job required.

Standard job specification of a Purchase manager

Position	: Purchasing manager
Hours of duty	: 9.00 hrs – 17.00 hrs
Total hours per week	: 48
Day off	: Sunday
Salary range	: Rs. 25,000 – Rs.45,000
Educational background	: Diploma in Hotel management, Diploma in material management
Experience	: Inventory control, Inventory evaluation

Special skills preferred : Ability and experience in setting product specification, Feasibility and development of central purchasing organization.

Job responsibility / description

The jobs required that the purchase manager must be able to: -

1. Accurately maintain, monitor, and record the effectiveness of all inventory movements on day-to-day basis.
2. Prepare relevant inventory reports at the end of each accounting period for costing and analysis.
3. Assist in monthly stock taking register.
4. Are able to operate, retrieve and interpret inventory data using inventory system.
5. Assist the purchasing manager in product specification development.
6. Assist the senior purchasing manager in central purchasing organization.
7. When requested to do so by the senior purchasing manager, evaluate new products and services and revise currently products for cost effectiveness and quality.
8. When required to do so by the purchase manager, to receive goods and check the quality according to set standards.

2.3.6 Standard Purchase Specification

Standard purchase specification are concise description of quality, size, weight , or count factor desired for a particular item, Specification buying will give uniformity and consistency to purchasing and receiving, that will aid to maintain a desire food cost and create a standard product.

Objectives and advantages:

a) To establish a suitable buying standard for particular commodity for the hotel.
b) To furnish the supplier in writing in specific term the requirement of the hotel.
c) To help in setting the price of a commodity.
d) To obtain a standard product material for food and beverage department.
e) To obtain a standard product so that measurement of performance of departments can be accurate.

For proper and effective control, purchase specification should be used in all purchasing. It helps in bringing uniformity and consistency in buying, which maintains required cost of product. Each specification is determined by purchase manger, Executive chef, and F & B manager as per the catering policies, menu requirement and price range. The specification format is maintained with F & B service and production, receiving, stores department.

The purchase specifications contain:

a) Definition of each item.

b) Grade or brand name of each item
c) Weight, size, or count.
d) Unit against which price should be coated.
e) Special note for the commodity.

STANDARD PURCHASE ORDER: This is an important document to be issued for all the items ordered (Fig. 5 C). This should be prepared listing all items ordered, delivery times, mode of payment, agreed price and other conditions. Purchase order form has 4 copies for each of the following:

1. Vendor
2. Purchase department
3. Stores and Receiving
4. File

Sl.No.

HOTEL XYZ
Address

Order No.________
Ref. No.________
Ordered on.______
Delivery on.______
Delivery Time____

To
Name of the Supplier:________________
Address:____________________________

Please supply the following items as per the terms and conditions:

Sl. No	Item Name	Unit	Quantity	Unit price		Amount		Remarks
				₹	P.	₹.	P.	
The acceptance of this order is an acceptance of the entire Quotations herein				Total				

Ordered By: Checked by:

Fig. Purchase order Form

2.3.7 Selecting a Supplier

The process of supplier selection requires an analysis of potential supplier's ability to provide desired quality, quantity and price. There are further aspects to be considered when selecting new suppliers.

1. Location------whether he is nearby or far from the establishment. If he is nearby it will be easier to contact him and get delivery on the right time
2. Product quality-----whether he supplies the right quality of product
3. Past performances---- Whether he is liable or not

4. Attitude---------His behavior towards the customer satisfaction
5. Experience------Past experience
6. Delivery capacity----Whether he can deliver the quantity required at the given time.
7. Market value-----can be known through research
8. Delivery schedules---Whether his delivery timings match your schedules
9. Mode of payment-------cash or through cheque and the time of payment--weekly / fortnightly / monthly etc.
10. Delivery time------whether the organization is able to cope up with the delivery times.

Instruction given to the suppliers

- Scheduling of deliveries is important to prevent the docking area from getting blocked.
- Delivery times and special requirements of delivery.
- The person or persons authorized to accept and sign for supplies.
- That the supplies are as ordered, including special instructions relating to “brands and sizes”.
- No alterations will be accepted between quoted and invoice prices.
- The names of the people who are authorized to order supplies.
- Price mentioned on the delivery note should tally with the purchase order.

2.3.8 Beverage Purchasing

Control was defined as a process used by managers to direct, regulate, and restrain the actions of people so that the established goals of an enterprise may be achieved. The control process was described as having four steps: establishing standards and standard procedures, training staff to follow those standards and standard procedures, monitoring staff performance and comparing it with established standards, and taking remedial actions as needed.

Responsibility for Beverage Purchasing: The nature and size of an operation often dictate who is responsible for purchasing beverages. In small, owner-operated establishments, the responsibility is normally that of the owner. it may be that of the manager. In some large operations, purchasing responsibility may be delegated to a purchasing agent, a steward, or a beverage manager. The job title of the individual responsible for beverage purchasing is of little consequence. The important point is that one individual should be given responsibility and held accountable for all beverage purchasing. For control purposes, it is desirable to assign the responsibility to someone who is not directly engaged in either the preparation or the sale of drinks.

CHECK YOUR PROGRESS- I

Q.1 What are the objects of purchasing?

Q. 2 Name the different types of purchasing activity involved in hotels?

Q. 3 What is the importance of purchase order form?

2.4 RECEIVING

All goods which come to the establishment are sent to the receiving department. The receiving department has to record all the items received and maintain the records in various files or books. Nowadays, all records are computerized and the details of each item can be easily queried. Records such as invoice, delivery notes, goods received note, and daily receiving report are maintained by the receiving section.

Invoice or Bill: As and when food or any item is delivered to the hotel, it should be always accompanied with a document, which supports that the items have been delivered. The document delivered is known as the invoice, which is similar to the bill. An invoice is a business document issued by a vendor to a purchaser, signifying the products and their quantities, approved prices for the products or services, which the vendor has already provided the purchaser with. An invoice also states briefly that if it is not paid in advance, the payment is due by the purchaser to the vendor as per the decided terms. A bill is a document which is generated for claiming the payment for goods either already supplied or just delivered. It provides the total price for services and goods delivered to a client, but for which no amount is paid and is presented in anticipation that payment would be made in full. An invoice is always prepared in duplicate is presented to the receiving clerk by the delivery person, who will expect the receiving clerk to sign and return the second copy. The invoice serves as an acknowledgement to the vendor that the establishment has received the products listed on the invoice. The original copy is, in effect, a bill which must now be routed to the accounts department or to whomsoever responsible for paying the bills. On receipt of the bill, the receiving clerk should rubber stamp the bill and verifies the information such as date, name of the receiving person, signature, price, and mention the bill is verified for payment.

Delivery Notice: A delivery note comes along with each supply sent by the vendor. It mentions only the details about the quantity and does not disclose information regarding the rate or amount. The delivery note received is then tailed with the purchase order to confirm the quantity ordered. Two copies are prepared for the delivery note, which mentions that goods received are as mentioned in the purchase order and the delivery note. The original copy of the delivery note is taken by the receiving department and the duplicate copy is signed by the receiving department's official which is sent back to the vendor by the delivery person.

Goods Received Note: For any well-organized organization, all material would be received by the goods-receiving department. The receiving department checks the quantity, quality and condition of items to be received against the copy of the purchase order from sent to it as well as the supplier's advice note. If the goods are acceptable, a goods received note (GRN) is raised. The GRN mentions the date, vendors name, purchase order number, quantity and explanation of the goods. After it is prepared, the GRN is usually signed by the head of the department or any person who has been authorized to do so. The number of copies of GRN to be prepared depends upon the establishment. In general, five copies are prepared and distributed to the purchasing, accounts, receiving, stores and ordering department.

The food is divided into two different quantities as some food purchased is for immediate use, whereas some items are kept in the inventory until required. As per the controls, the food that are charged to the costs are known as directs and those charged to costs when issued from the inventory are called stores. Directs are those food items, which are extremely perishable in nature and are more or less purchased on daily basis for immediate use. These items are purchased everyday and are issued to the respective departments as soon as they are received and are included in the food cost on the date of delivery. The F & B controller of an establishment may categories the food into directs and stores as per the storage capacity available and usage. The receiving clerk daily report is prepared for all items received on a particular day. It is prepared by the receiving clerk who records the data obtained from the invoice in appropriate columns on the report followed by totaling each invoice into one of the three columns under Purchase Journal Distribution- food direct, food stores and sundries. The food items are directly issued. The receiving staff should follow some form of standardized receiving, and look for sign of spoilage and adulteration. When the goods received are returned by the receiving clerk to the vendor with the returned quality and amount for the return goods, a debit note is prepared requesting for return of money. When there is a shortage of goods or if the goods are not as per SPS, the receiving clerk writes as credit memo/credit note mentioning the details and requesting the vendor to remove the goods mentioned in the bill. The credit note notifies the vendor about the misses or shortage and also explains the credit made in the account of the buyer with the reasons.

The receiving area should be at the backside of the hotel and should have sample area for vehicles to come and unload the supplies; it should be close to the storage area so that it is easier to store them after receiving. This area has a weighing scale, trolleys and worktable. In larger establishments, the receiving area has weighing, washing and packing facilities for storing food in the cool room or other storage.

2.4.1 Types of Receiving

1. **Invoice receiving-** Goods received against the invoice, accompanied with the delivery note. Here the invoice is checked with the purchase order or the quotation or any other document.
2. **Blind Receiving-** In this there is no invoice accompanying the delivery. The supplier prepares regular invoices and sends them through mail to the hotel’s accounting department. At the receiving department, the clerks write the details of all the incoming items.
3. **Partial blind receiving-** This is a combination of blind receiving and invoice receiving. the receiving clerk has itemized purchase orders, delivery notes and invoices with the quantities omitted. The further details about the items are mentioned by the receiving clerk on spot.

2.4.2 Receiving Procedure

You should always assure that you have received the desired quality and quantity from the supplier. This is accomplished in the following way:

- Have cool rooms and storeroom is ready and clean to arrange new stocks neatly.
- See that the materials, methods and equipments are ready for testing like lactometer weighing machine etc.
- Check the deliveries are for your establishment or not against the standard Purchase specification.
- Count and weigh deliveries and check dates, temperature, and packing for damage.
- Check all frozen foods are still frozen when delivered.
- Sign all delivery dockets and forms legibly.
- Any discrepancies noticed should be indicated on the copy of the delivery note duly signed to be notified to the supplier.
- Memo invoice made out when no bill or delivery slip accompanies the merchandise.
- Consistently late deliveries to be brought in notice to the purchasing department.
- Store foods in correct areas at the correct temperature.

The invoice/challan has two copies one is returned to the supplier and the other is kept for records

2.4.3 Beverage Receiving

The primary goal of receiving control is to ensure that deliveries received conform exactly to orders placed. In practice, this means that beverage deliveries must be compared with beverage orders in regard to quantity, quality, and price. The standards established for receiving are quite simple.

1. The quantity of an item delivered must equal the quantity ordered. Verifying this normally requires examining bottles to be sure they have been filled and sealed, and then simply counting bottles or cases. It can also involve weighing kegi of beer to confirm the standard of fill or examining containers to confirm that those received conform to the order.

2. The quality of an item delivered must the same as the quality ordered. For all spirits, wines, and beers, one would check to be certain that the brand delivered was the same as the brand ordered. For wines, verification may also require checking vintages or the bottling dates of wines that are best when young. For beers, it may require checking bottling or canning dates to ascertain freshness.

3. The price on the invoice for each item delivered should be the same as the price quoted or listed when the order was placed.

Because the basic standards for the job are rather clear and simple, any honest individual of suitable intelligence and ability can be trained to receive beverages correctly.

Establishing Standard Procedures: Standard procedures must always be established to ensure that standards will be met. The steps identified in the following list are generally considered those that make up a basic standard procedure for receiving beverages.

1. Maintain an up-to-date file of all beverage orders placed. Depending on the operation, these orders may be formal, informal, or a combination of the two. Major hotels, for example, commonly use formal purchase order systems. In contrast, the only record of an order placed by a small neighbourhood restaurant may be some notes taken during a telephone conversation between the owner and a salesperson. Regardless of the size of the establishment, there can be no effective receiving procedure without written records of the orders placed, and the individual responsible for receiving must have these records available.

2. Remove the record of the order from the file when a delivery arrives and compare it with the invoice presented by the delivery driver to verify that quantities, qualities, and prices on the invoice conform to the order. Figure 6.1 illustrates a typical beverage invoice.

To: **Henry Hilson Hotel** INVOICE # 639-A142

1066 West 41st Street

New York, NY 10098 **TERMS C.O.D.**

DATE Oct. 3 ORDER # C267 ACCOUNT # H108 SHIP Truck

Item No.	Qty. Ordered	Qty Shipped	Purchase Unit	Bottle Size	Description	Unit Price	Total Price
458	6	6	case	750ml	Old Crow bourbon	155.40	932.40
376	2	2	case	750ml	Beefeater gin	179.40	358.80

						Total	1,291.20

Figure Beverage invoice

3. Complete the following before the delivery driver leaves the premises.
   a) Check brands, dates, or both, as appropriate, to verify that the quality of beverages delivered conforms to the invoice.
   b) Count or weigh goods delivered to verify that the quantity received also conforms to the invoice.
4. Compare the invoice with the order to verify that goods received conform to the order placed.
5. Call to the attention of both management and the delivery driver:
   a) Any broken or leaking containers
   b) Any bottles with broken seals or missing labels
6. Note all discrepancies between delivered goods and the invoice on the invoice itself. Call any discrepancy between an order and the delivery to management's attention immediately. Any such discrepancy may require a decision from management as to whether to accept delivery of the questionable items.
7. Sign the original invoice to acknowledge receipt of the goods, and return the signed copy to the driver. Retain the duplicate copy for internal record keeping.
8. Record the invoice on the beverage receiving report.
9. Notify the person responsible for storing beverages that a delivery has been received.

In many establishments, a form known as a **beverage receiving report** is filled out dally by the individual responsible for receiving beverages.

It is generally considered good practice to require not only that the individual receiving the beverages sign the beverage receiving report each day, but also that the individual responsible for storing the beverages (the wine steward, for example) sign it. By so doing, this individual acknowledges receiving the beverages listed on the report for addition to the beverage inventory.

DATE:……………………
HENRY HILSON HOTEL

BEVERAGE RECEIVING REPORT										
Distributor	Item	Quantity Received	Purchase Unit	Size	Unit Cost	Total Cost	Purchase Journal Distribution			Mixers
							Wine	Beer	Spirit	
A&C Suppliers	Old Crow	6	Case	750 ml	$155.40	$932.40			$932.40	
A&C Supplier's	Beefeater	2	Case	750 ml	$179.40	$358.80			$358.80	
Blue Distributors	Budweiser	12	Case	375 ml	$11.95	$143.40		$143.40		
Canada Dry	Tonic	7	Case	250 ml	$9.00	$63.00				$63.00
Krumpf Importers	Moselle	4	Case	750 ml	$60.00	$240.00	$240.00			
Krumpf Importers	Chateau Rue	2	Case	750 ml	$105.00	$210.00	$210.00			
Total						**$1947.60**	**$450.00**	**$143.40**	**$1291.20**	**$63.00**

Figure: Beverage receiving invoice

CHECK YOUR PROGRESS- II

Q.1 What are the various types of receiving?

Q. 2 Write a note on Receiving Procedure.

Q. 3 Write a note on beverage receiving procedure.

2.5 STORAGE

The main aim of a food store is to ensure that an adequate supply of foods for the immediate needs of establishment are available at all items. Foods when accepted at the receiving department are categorized as perishable and non-perishable items. The perishable items go straight to the kitchens, where they would be stored in either refrigerators or cold rooms depending on the item. Perishable foods going direct to the kitchen are often referred to as being on direct charge in that they will usually be used within one to three days of delivery by the kitchen. Ideally, meet, fish, dairy Product, fruit and vegetables, and deep frozen foods should be stored separately from each other. The non-perishable items go to a food store where they are unpacked, checked for any damage and placed on racking. All deliveries to be recorded in the foods received book and credit notes obtained for any variance between what is started on the delivery note and what is actually delivered.

All deliveries of food to be entered into bin cards/ledgers on the day of the delivery. Maintain certain charges and credits for period inventory. Complete an inventory of all chargeable containers in the store. At set periods complete a full stock take of all food stores and food held in the kitchens and compare to ledgers. Prepare a stocktaking report and stock take variance report.

Raw material should be stores correctly under the right condition and temperature. Keeping a properly run and efficient store room is essential in order to maintain the unified process of control throughout the operations. A clean, orderly food store, run efficiently, is essential in any foodservice establishment for the following reasons:

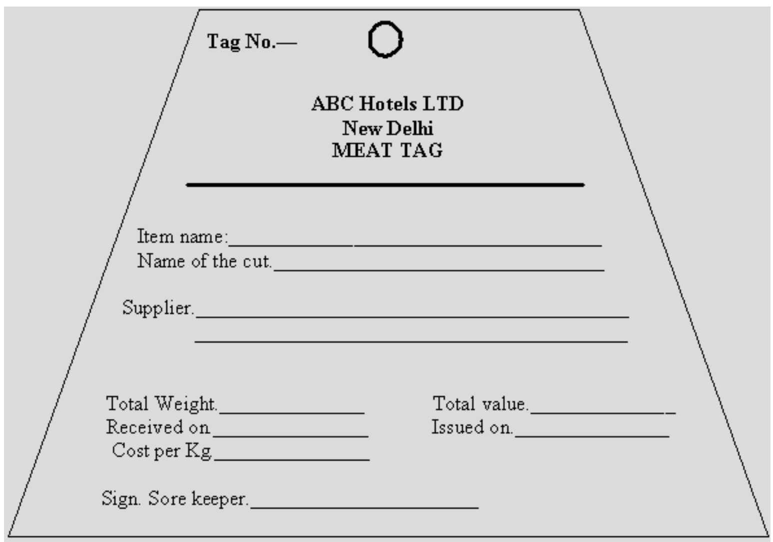
1. To keep the inventory to optimal level.
2. Quick and safe entry and exit of food material from the store
3. Help in preventing wastage and pilferage.

Storage Procedures-

1. All foodstuffs to be frozen should be properly wrapped to prevent deterioration and dis-coloration, dehydration and oxidation. Aluminum wrappers—not vapor proof and polythene and plastic films—suitable for freezer storage.
2. Make sure the products purchased are well within the user by date.
3. Inspect products for staleness and spoilage.
4. Rotate all perishables goods, including frozen goods, so that the older stock is used first. Storage should be on the FIFO system.
5. Frozen goods must go to the frozen storage as soon they are delivered.
6. Arrange the food according to the type of commodity.
7. Place the stock items in alphabetical order of commodity
8. Stamp the date of receiving before shelving to ensure that old stocks are used up first.

9. Place on shelves according to date stamped with earlier ones in the front row and the later ones behind.
10. Mark the prices on the items as well.
11. Tagging of highly perishable items, especially highly priced meat.
12. Arranged commodities in organized and presentable manner.
13. Commodities should be kept likewise as to keep space so that free air circulation around the items is possible.
14. Segregate smelly foods i.e., which emits strong odors like fish, onions, garlic, and some cheeses. Because the commodities near them tend to absorb these odors. Where it is not possible the "smelly" food should be thoroughly wrapped or kept in airtight containers.
15. Inspect regularly to detect any type of spoilage due to moulds, pests or insects.

Meat tags: In majority of the establishment the expensive flesh items needs detail system for special control of these items. In this the meat is tagged with special cards known as ***meat tag***. The meat tag is made for each item received in duplicate (one is attached to the meat item and the other goes to the controls depts.) The main information is taken from the delivery note and written on it.


Tag No.—

ABC Hotels LTD
New Delhi
MEAT TAG

Item name:________________________
Name of the cut.________________________

Supplier.________________________
____

Total Weight.____________ Total value.____________
Received on.____________ Issued on.____________
Cost per Kg.____________

Sign. Sore keeper.________________

Fig 5C Format of Meat Tag

Purpose or importance:

1. It aids the control of expensive foods
2. It requires the receiving clerk to weigh and record each item, and to check against the purchase specification.
3. Helps in assessing accurate food cost percentage.
4. Stock level of the items is controlled.
5. Clearly marked date helps in issuing by efficient rotation of stock.
6. Assists in monthly inventory system.

Procedure:

1. Check the received items against the purchase specification.
2. Tag to be made for each item.
3. Tags to be made in duplicate.

4. When the meat item is issued to the required depts., the tag is removed and sends to the controls depts. With the date of issue filled on it.
5. The control office after receiving both the tags evaluates
   a) The daily purchases and issue.
   b) Balance shown should give the stock value of those items.

Beverage Storage: Storing control is established in beverage operations to achieve three important objectives:

- To prevent pilferage
- To ensure accessibility when needed
- To preserve quality

To accomplish these objectives, standards must be established. The following standards are critical to effective storing control:

1. To prevent pilferage, it is clearly necessary to make all beverage storage areas secure. To establish the proper degree of security, access to storage areas must be restricted to authorized individuals, and steps must be taken to guard against unauthorized use of beverages by those who are permitted access to the storage areas.
   Alcoholic beverages are among the items in hotels and restaurants that are most prone to theft by those who are inclined to steal. Unless appropriate steps are taken, beverage products will disappear. There are many reasons for this, including the dollar value of the products, addiction to alcohol, and irresponsible, impulsive behavior, among others.

2. To ensure accessibility of products when needed, the storage facility must be organized so that each individual brand and product can be found quickly. In practice, this means assigning a specific storage location (shelf or bin number) to each item in the beverage inventory.

3. To maintain product quality, each item in the beverage inventory must be stored appropriately, under conditions that will maximize its shelf life. This requires taking into account such important elements as temperature, humidity, and the manner in which items are stored.
   Although the quality of spirits will not be adversely affected in storage under most conditions, wines and beers are subject to rapid deterioration if improperly stored.

Establishing Standard Procedures: Standard procedures must always be established to ensure that standards will be met. The standard procedures required to achieve control over the storing of beverages normally include those discussed in the following paragraphs.

Procedures to Make Beverage Areas Secure: Because beverage products are prone to theft, it should be obvious that keeping them in a secure facility is urgent requirement. There are two ways to maintain the necessary degree of security. The first is to assign responsibility for the security of the stored items to one person alone. This responsibility can mean literally keeping watch over these items. In many hotels and some large restaurants, a steward may be assigned to work in the storage facility, maintaining the stock and issuing beverages as needed. Typically, this steward is the only person permitted in the facility, except for authorized managers. In operations that are open for long hours, responsibility may be shared by two or more stewards working different shifts. Alternatively, the hours for storing and issuing beverages may be restricted so that one person can be held accountable for the beverage inventory.

The second way to maintain security is to keep the beverage storage facility locked and to issue a single key to one person, who will be held accountable for all beverages in the inventory. The person with the key is required to open the lock and issue the needed beverages. An alternative provision can be made for issuing the needed beverages in the absence of this one individual. For example, procedure can be established by which a manager can gain access to the beverage storage facility.

The difficulty with both of these procedures is, of course, that the individual assigned responsibility for the beverage inventory is not likely to be available 24 hours a day. At some point, the storage facility will be inaccessible, and no one will be able to obtain items that may be urgently needed. One way to prepare for this eventuality is to place a second key in a safe or a similar secure location and require that anyone using it sign for it and write a short explanation of why it is needed. Some managers may require both an explanation and a list of the items removed from the facility. However, making a second key available reduces both the degree of security and the possibility of holding one individual accountable for all beverages in the inventory. In general, the common standard procedure is to keep the number of keys to the minimum that management deems appropriate for efficient operation and maximum security. If there is more than one key or if more than one person has access to the single key, it is normally advisable to change locks regularly to minimize the possibility that some persons may obtain and use duplicate keys. It is also advisable to change locks whenever a worker with access to the beverage storage facility leaves the employ of the establishment.

Some hotels and large restaurants take the additional precaution of installing closed-circuit television cameras to keep various facilities and their entrances under observation, such as the doors to beverage storage areas. A security guard in a remote area is responsible for monitoring traffic into and out of the area on a television screen. As an alternative, activity in the area may be monitored by means of a videotape recording that can be viewed by the security staff at a later time.

Another means of monitoring is to install special locks that print on paper tape the times at which the doors on which they are installed are unlocked and relocked. The times printed on the tape inform management exactly when the door to a facility was unlocked and how long it remained so. This is a less costly alternative to a closed-circuit television system, but it provides less information. Maintaining the security of the beverage inventory is a clear imperative for any hotel or restaurant, requiring constant vigilance and careful monitoring.

Procedures to Organize the Beverage Storage Facility: Ensuring accessibility means storing beverage products in an organized manner, so that each stored item is always kept in the same place and thus can be found quickly when needed. The physical arrangement of a storage area is important. Similar items should be kept close to one another. All gins, for example, should be kept in one area, rye whiskies in another, and scotch whiskies in a third. This kind of arrangement simplifies finding an item when needed. It is helpful, too, for a floor plan of the storage area to be affixed to the door of the facility so that authorized personnel can easily locate items.

One way of ensuring that items will always be found in the same locations is to institute the use of bin cards of the type illustrated in Figure. Bin cards can be affixed to shelves and serve as shelf labels. When properly used, **bin cards** include essential information (type of beverage, brand name, and bottle size, for example). They may also include an identification number for beverages. Some establishments assign a code number from a master list to each item in the beverage inventory and record that code number on the bin card. Figure provides an example of the kind of numbering code often used for wines, spirits, and beers in a beverage inventory.

ITEM Old Crow			STOCK NUMBER 153				
Date	In	Out	Balance	Date	In	Out	Balance
Oct. 1			4				
Oct. 3		1	3				
Oct. 7		1	2				
Oct. 11		1	1				
Oct. 12	4		5				

Bin Card

American Whiskies: 100 series

Blended Rye	100-139
Straight Rye	140-149
Bourbon	150-179
Sour Mash	180-189

Imported Whiskies: 200 series

Scotch	200-239
Canadian	240-249
Irish	250-259
Other	260 - 269

Gins & Vodkas: 300 series

Gins domestic	300 - 329
Gins imported	330-349
Vodka Domestic	350 - 379
Vodka Imported	380-399

Rums and Brandies: 400 series

Rum	400-419
Brandy domestic	420 - 429
Brandy imported	430 - 439

Cognac 440 - 449

Cordials and Liqueurs: 500 series

Red Wines: 600 series

White Wines (still): 700 series

Other Wines: 800 series
Sparkling, Rose, Dessert, Aperitif

Beers and Ales: 900 series

Figure: Illustration of beverage code numbers

In many establishments, indelible ink is used to stamp this code number on each bottle received. This technique serves several purposes. In the case of wines, the names of which can be difficult to pronounce and spell, code numbers eliminate the problems faced by customers ordering wines and employees seeking to fill the orders. In many instances, wine lists are printed with bin numbers. This can lead to an increase in wine sales, which can be highly profitable. Stamping code numbers on bottles of alcoholic beverages also provides an added measure of control: The stamped number on a bottle identifies that bottle as the property of the hotel or restaurant. This makes it impossible for an employee to claim that such a bottle is personal property if one is found in his or her possession. In addition, empty bottles can be checked for numbers before they are replaced by full bottles, thus ensuring that no one is bringing empty bottles into the establishment and using them to obtain full bottles from the establishment's inventory.

The use of bin cards also enables a wine steward to maintain a perpetual inventory record of quantities on hand. By using this card carefully to record the number of units received as they are placed on the shelves, as well as the number of units issued as they are given out, the wine steward has a way of determining the balance on hand without counting bottles. In addition, the wine steward who carefully maintains such records has a way of determining that bottles are missing so that this can be brought to management's attention immediately.

Internally, the storage area should he kept free of the debris that can pile up as the result of emptying cases and stocking shelves. Once opened, cases should be completely emptied. All units in a case should be stored on the appropriate shelf and the empty carton removed at once. In addition, care must be taken to ensure that some individuals do not purposely remove cartons that are not completely empty.

Procedures to Maximize Shelf Life of Stored Beverages: Procedures for maximizing the shelf life of stored beverages may be divided into two categories:

1. Those dealing with temperature, humidity, and light in the storage facilities
2. Those dealing with the manner in which bottles and other containers are handled and shelved

Temperature, Humidity, and Light in Storage Facilities: For every beverage product, there is a temperature range appropriate for storage that will tend to preserve quality and shelf life. For some, the range is extremely broad; for others, it is very limited. Spirits, for example, can be stored indefinitely at normal room temperatures without harming product quality. If necessary, they can be stored well above or well below room temperatures for considerable periods. As long as the storage temperature does not become extreme, they will not suffer loss of quality. In contrast, carefully controlled storage temperatures are critical for maintaining the quality of beers and wines. The problem of maintaining product quality for these items is complicated by the fact that various wines and beers require different treatments, depending on how they were made and the containers in which they are purchased.

It is normally advisable to learn from the maker, brewer, or distributor of each specific brand the temperature range recommended for the proper storage of the product. As a general rule, red ines should be stored at about 55°F. White wines and sparkling wines should be kept at slightly lower temperatures. Pasteurized beers can be stored for limited periods at normal room temperature without great harm, but they are normally kept under refrigeration, closer to the temperature at which they will be served. However, beer that has once been chilled should be kept chilled thereafter to maintain quality. Unpasteurized beers, including all draft and some bottled and canned beers, should be stored at about 40°F to reduce the risk of deterioration.

The degree of moisture in the air is of significance only for those beverages purchased in corked bottles. In general, wines are the beverages typically purchased in corked bottles, and the better the wine, the more likely the bottle is to have a cork rather than a screw top. Low humidity will cause corks to dry out, thus permitting air to reach the product. Air is likely to harm product quality. Therefore, wines should be stored either in rooms that are naturally cool and damp or in special facilities, such as refrigerated rooms where both temperature and humidity can be controlled.

Bottled wines and beers should be kept away from light, which adversely affects product quality. Natural light is more harmful than artificial light, but any light will affect these products.

Vintners and brewers package their products in colored glass bottles, commonly dark green or dark brown, to minimize the negative effects of light. However, although the dark glass reduces the impact, it merely slows the inevitable deterioration that light will cause if these products are not properly stored.

Shelving and Handling Bottles and Other Containers: Spirits can be stored upright on horizontal shelves for unlimited periods. In contrast, wines and other corked beverages cannot safely be stored in an upright position. If they are to be kept for any length of time, they must be stored on their sides, parallel to the floor. There are special racks designed to store wines in the proper position. In this horizontal position, the beverage in the bottle is kept in constant contact with the cork, helping to keep the cork moist and thus keeping the bottle tightly sealed.

Canned and bottled beers are usually not shelved at all. They are delivered in cases and are stored in those cases. The cases are typically stacked in the storage facility to save space. Handling is an important factor in maintaining the quality of beers and wines. They should be handled with great care as they are being positioned in wine racks and later, as they are being removed to fill customers' orders. Many wines, especially finer reds, develop natural sediment that settles in the bottle. If the bottle is improperly handled, this sediment will be dispersed through the wine, destroying its clarity and making it unpalatable to those who appreciate and order fine wines. For all practical purposes, the wine becomes unusable until the sediment has resettled. Sparkling wines—those containing natural or artificial carbonation—must also be handled carefully for obvious reasons. Beers require careful handling as well. They are carbonated beverages, and shaking will cause them to foam excessively.

CHECK YOUR PROGRESS- III

Q.1 Write a note on Storage Procedure.

Q. 2 Write a note on Meat Tag.

Q. 3 Write a note on bin card.

____
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2.6 INVENTORY

The term 'Inventory' means the value or amount of materials or resources on hand. It include raw materials, work-in-process, finished goods and stores. Inventory control function includes receiving, inspection, issuing and handling of materials. The effective operation of these functions forms the basis of successful operation of any inventory.

Green J.H. (1970) defines inventory control system as "the process of determining the items or groups of item that deserve the maximum control of efforts."

Procedures used by hospitality operators to ensure that the quality and cost of all items in storage areas are maintained according to company standards. Usually involves environmental controls such as proper temperature, humidity and ventilation as well as the use of security methods such as web cam, physical barriers and strict accounting procedures. Tight control exists when only a few persons are authorized to withdraw items from the storeroom. It also exists when effective and efficient security person prevail. The inventory control aspect is perhaps the most important parts of the store room manager's job. There are two reasons for keeping a constant check on inventory. One is to pinpoint losses quickly in order to put a stop to them. The other reason has to do with purchasing. If you have lost stock due to theft, breakage, error or whatever, you must buy stock to replace it, so that you must buy stock to replace it, so that you can serve your customers. Therefore, you need to know what you really have on hand in order to plan each purchase. Importance of Inventory in the catering establishment are as follows**:**

(1) The Decoupling Function: One of the major functions of inventory is to decouple manufacturing processes within the organization. If a hotel do not store inventory, there could be many delays and inefficiencies. For example, when one manufacturing activity has to be completed before a second activity can be started, it could stop the entire process. However, stored inventory between processes could act as a buffer.

(2) **Storing Resources:-** Agricultural and seafood products often have definite seasons over which they can be harvested or caught, but the demand for these products is somewhat constant, during the year. In these and similar cases, inventory can be used to store these resources. In hotels, raw materials can be stored by themselves, as work-in-process, or as finished products.

(3) **Irregular Supply and demand:** When the supply or demand for an inventory item is irregular, storing certain amounts in inventory can important. If the greatest demand for Diet-Delight beverage is during the summer, the diet-delight company will have to make sure there is enough supply to meet this irregular demand. This might require that the company produce more of the soft drink in the winter than is actually needed in order to meet the winter demand. The inventory levels of Diet-Delight will gradually build up over the winter, but this inventory will be needed in the summer. The same is true for irregular supply.

(4) **Quantity Discounts:** Another use of inventory is to take advantages of quantity decision. Purchasing in large quantities can substantially reduce the cost of products. There are, however, some disadvantage of buying in large quantities. You will have higher storage costs and higher costs due to spoilage, damaged stock, theft and so on. Furthermore, if you invest in more inventory, you will have less cost to invest elsewhere.

(5) **Avoiding Stockouts and shortages:** Another important function of inventory is to avoid shortage or stockouts. If a hotel is repeatedly out of stock, customers are likely to go elsewhere to satisfy their needs. Lost goodwill can be an expensive price to pay for not having the right item at the right time.

Objectives of Inventory: The following are the objectives of inventory are as follows:

- To meet unforeseen future demand due to variation in forecast figures and actual figures.
- To average out demand fluctuations due to seasonal or cyclic variations.
- To meet the customer requirements timely, efficiently, effectively, smoothly and satisfactorily.
- To smoothen the production process.
- To facilitate intermittent production of several products on the same facility.
- To gain economy of precaution or purchase in lots.
- To reduce loss due to changes in prices of inventory items.
- To meet the time lag for transportation of goods.
- To meet the technological constraints of production/Process.
- To balance various costs of inventory such as order cost or set up costs of inventory.
- To minimize losses due to deterioration, obsolescence, damage, pilferage etc.
- To stabilize employment and improve our relations by inventory of human resources and machine efforts.

Levels of Inventory: Levels of inventory are determined by a variety of factors. Some of the most important ones are as follows:

(1) **Storage Capacity:** Many times, Kitchen lack adequate storage facilities. In some cases, they are short on space for frozen or refrigerated foods but have excess capacity in dry storage areas. Hotel must be careful not to determine inventory levels in a way that will overload your storage capacity. When storage space is big, the tendency by some many is to fill the space. It is important that this not be done as increased inventory of items generally leads to greater spoilage, loss due to theft and careless use of valuable and expensive products.

(2) **Items Perishability:** If all food products had the same shelf life that is, the amount of time a food item retains its maximum freshness, flavour and quality while in storage, you would have less difficulty in determining the quantity of each item you should keep on hand at any given time. Unfortunately, the shelf life of food products varies greatly. Because food items have varying shelf lives, you must balance the need for a particular product with the optimal shelf life of that product. Serving items that are 'too old' is a sure way to develop guest complaints. One of the quickest ways to determine the overall effectiveness of a food service manager is to 'walk the boxes'. This means to take a tour of a facility's storage area. If many products, particularly in the refrigerated area, are moldy, soft, overripe or rotten, it is a good indication of a food service operation that does not have a feel for proper inventory levels based on the shelf lives of the items kept in inventory.

(3) **Vendor Delivery Schedule:** Location of your hotel and type of your operation ascertain the frequency of delivery by the vendor. It is important to remember that the cost to the vendor for frequent deliveries will be reflected in the cost of the goods to you. Vendors will readily let you know what their delivery schedule to a certain area or location can be. It is up to you to use this information to make good decisions regarding the quantity of that vendor's product you must buy to have both working stock and safety stock.

(4) **Potential Savings from Increased Purchase Size:** For the large food service operator saving by purchasing large quality and thus, receive a lower price from your vendor. There are costs associated with extraordinarily large purchases. These may include storage costs, spoilage, deterioration, insect or rodent infestation or theft. You should determine your ideal product inventory levels and then maintain your stocks within that need range.

(5) **Operating Calendar:-** When an operation is involved in serving meals seven days a week to a relatively stable number of guests, the operating calendar makes little difference to inventory level decision making. It can be said that an operator who is closing down either for a week-end or for a season should

attempt to reduce overall inventory levels as the closing period approaches. Many operators actually plan menus to steer clear of highly perishable items near their closing periods. They prefer to work highly perishable items such as fresh sea food and some meat items.

(6) **Value of Inventory for the operator:** Operators remove rupees from their bank accounts and convert them to product inventory. When this is done, the operator is making the decision to value product more than the rupees. When it is expected that the value of the inventory will rise faster that the rupees. When it is expected that the value of the banked rupee, this is a good strategy. All too often, however, operators overbuy or 'stockpile' inventory, causing too many money to be tied up in non-interest bearing food products. When this is done, managers incur opportunity costs. An opportunity cost is the cost of foregoing the next best alternative when making a decision. You could choose to use your money to buy food inventory that will sit in your storeroom until it is sold, or you could choose not to stockpile food inventory and invest the money. If you stockpile the inventory, then the opportunity cost is the amount of money you would have made if you had invested rather than holding the excess inventory.

Methods and Technique of Inventory: The momentous decisions faced by management are how much to order, when to order, what safety stocks to keep, and what stock-out probabilities and levels are acceptable. The major production oriented methods and techniques of inventory control for managing inventories efficiently are:

1. **ABC Analysis:** The basic work in this always better control analysis is the classification and identification of different types of inventories, for determining the degree of control required for each. In many firms it is found that they have stocks which are used at very different rates. So items are classified under three broad categories A, B and C, on the basis of usage, bulk, value size, durability, utility, availability, critically etc; and should be controlled with due weightage to differential characteristics. The items included in group, 'A' involve largest investments and the inventory control should be most severe to these items. 'C' group consists of inventory items which involve relatively small investments although the number of items remain large. These items deserve minimum attention of control. In 'B' group that items are included which are neither of 'A' nor 'C'.

2. **Economic Order Quantity Model:** The Basic decision in an economic order quantity (EOQ) procedure is to determine the amount of stock to be ordered, at a particular time so that the total of ordering and carrying costs may be reduced to a minimum point. A firm should place optimum orders and neither too large nor to small. The EOQ is the level of inventory order that minimizes the total cost associated with inventory. The EOQ model is based on following four assumptions:-
   (i) A firm has a steady and known demand of D units each period for a particular input.
   (ii) The firm consumes the input at a uniform rate.

(iii) The cost of carrying stocks are a constant amount C per unit per period.

(iv) The cost of ordering more inputs are a fixed amount O per order. Orders are delivered instantly.

A Useful formula for calculating the optimum order quantity is:-

$$EOQ = \sqrt{2DO/C}$$

To show how we might use the formula consider in which a firm has an annual inventory requirement of 10,000 units. The accounting costs associated with placing an order with the supplier come to Rs. 200 per order and carrying costs of holding stocks are expected to be Rs. 4 per unit.

Hence,

D = 10,000 Units

O = Rs. 200

C = Rs. 4

$$E\,OQ = \sqrt{2 \times 10{,}000 \times 200/4} = \sqrt{10{,}00{,}000}$$

$$= 1{,}000 \text{ units}$$

Therefore, 1000 units should be ordered every 37 days.

The EOQ model is very simple one and its assumptions will be unrealistic in many applications in practice orders are not delivered instantly. The assumption usage of inventory and known annual demand are of doubtful validity.

3. **Minimum Safety Stocks:** To avoid stock outs firms maintain safety stocks of inventory. The safety stock is the minimum level of inventory reaches 12,000 units instead of 10,000 units, the additional 2,000 units constitute a safety stock. The manager expects to have 2,000 untis in stock when the new order arrives at the schedule time. The safety stock protects as a safe-guard against stock-outs position due to unanticipated increase in usage resulting from an unusually high demand and/or an uncontrollable late delivery of inventories.

The increase in the amount of inventory held as safety stock reduces the chances of stock-out and therefore, reduces stock-out costs over the long run. The level of inventory investment is, however increased by the amount of safety stock. The optimum level of inventory investment is, however increased by the amount of safety stock. The optimum level of safety stock is determined by the trade-off between the stock-out and the carrying costs.

Thus the best level of safety stock for a given item depends on stock-out costs, variability of usage rates and delivery times. The safety stock level is the multiplication of the average demand during a period of the maximum delay and probability of its occurrence. If the usage rate and delivery times. The safety stock level is the multiplication of the average demand during a period of the maximum delay and the probability of its occurrence. If the usage rate and delivery time or lead time can be forecasted with a high degree of accuracy and if the cost of stock-out is estimated to be small, then little or no safety stock will needed. If the circumstances are not so favourable, then the significant investment in safety stock will be desirable.

4. **Re-order Point:** In addition to set EOQ, the inventory management must know when to place the order for avoiding the stock-out position. Especially in the Indian Context where there is a considerable time lag between placing the order and actual receipt of the inventory, determining the re-order point (ROP) is momentous as well as intricate. The ROP may be defined as the level of inventory, at which a fresh order should be placed to the suppliers for replenishing the current stock. The ROP is calculated as the load time X daily usage. The lead time is the time lag between raising an order and the goods being delivered. For example, if the normal daily usage of material is 100 units and it takes 30 days for the supplier to deliver the goods, then an order must be sent out when the stock level reaches 3,000 units. If safety stocks are held then re-order level should be:

   Safety stock + (lead time x daily usage)

   Another method of ordering is the 'two bin' and 'there bin systems.' These involve putting a quantity equal to the re-order level in a separate bag or bin which is sealed or put in a separate location; the rest of the stock is withdrawn as needed with no record of individual usage being kept. Opening the sealed bin, however, gives the indications for a replenishment order. This method is cheap as it does not entail continuous, monitoring and is easy to understand-it has therefore gained a fair amount of acceptance. There are also other types of system is use known as the 'min-mix' or 'S-s' method. However, an organization will have to take care of lead time with sufficient initial stock and then follow it up regularly with EQR cycles.

Perpetual Inventory: Another way of providing inventory information is to compile ongoing daily records from invoices and requisitions, adding each day's purchases and sub tracing each day's issues for every item in stock. This task is typically performed by the accounting department, and the results are known as a perpetual inventory. It is kept by hand or forms or bin cards- a separate card for each item-or by computer, which can report the stock record at any given moment with pushbutton ease.

At any point in time, the perpetual inventory is a paper record that should indicate exact quantities of every item you have on hand. It does not tell you what you really have: only a physical inventory can do that. Its primary function is to provide a standard against which a physical count can be measured, item for item, at any given time. If everything is in order, they should also agree-they, too, are a form of perpetual inventory. The more inventories you have, the more important it is that a perpetual inventory be kept. Since it should also clearly reveal a product's depletion rate, it has the added benefit of making the ordering process more accurate. It also greatly assists in detecting employee theft. And finally, it assists you in meeting your state's licensing requirements to maintain accurate records of the bar's alcohol purchases.

If the actual count and the perpetual inventory record don't agree, you are faced with determining whether there are errors in the records or the count, or the items themselves have disappeared. You can trace errors in the record by going back to the invoices and requisitions; and errors in the count by recounting. If you can't find any mistakes, you may as well assume theft, and adjust your perpetual inventory record accordingly.

There are other ways of measuring discrepancies that are accurate enough for everyday use. Overall, the most critical reason for a good inventory management system is this: If you don't have a way of knowing where you ought to be, you can't measure where you are now.

Monthly Inventory: Physical inventory is taken at the close of an accounting period, typically after the close of an accounting period, typically after the close of business on the last day of a calendar month. Taking physical inventory requires counting the actual number of units on hand of each item in stock in stock and recording that number of units on hand of each item in stock and recording that number of units on hand of each items in stock and recording that number of units on hand of each item in stock and recording that number in an appropriate place. The purpose of this process is to provide a list of goods on hand so that the value of goods may be determined or recorded. Taking a physical inventory in a storeroom, commonly requires two people; one to count the units on the shelves and the other to record the numbers in the inventory book. If the storeroom is arranged properly, it is possible for the two to begin in one logical spot and work their way through the entire inventory in order, finding items on shelves in the same order as listed in the inventory book. Once the units in inventory have been counted and the count has been recorded, total values can be determined for the items listed. To determine these totals, one records the unit cost of each product and multiplies it by the number of units of that product in the physical inventory. When the total value of each product and determined this way, the totals are added to find total Rupee value of all items in the inventory. This figure, know as closing inventory for the period, automatically becomes the opening inventory for the next period.

One of the principal difficulties in valuing an inventory is assigning the unit value for each item, because all purchases may not have been made at the same price. It is not uncommon for prices to change several times during the course of a month. Determining the proper value to assign to units remaining in inventory at the end of the month raises a question as to which, if any, of the various purchase prices should be assigned to the unit remaining in the inventory.

Comparison of Physical and Perpetual Inventory: The Comparison of physical and perpetual inventory is as follows:

A physical inventory involves the manual counting of each item in stock on a regular basis. For an accounting purpose, an inventory is conducted at the end of each calendar month or, if using the period system, at the end of each four week period. The ending inventory numbers are then used to calculate the cost of goods sold on an income statement; these calculations are then used for related processes such as inventory turnover analysis. Some operators take inventory on a weekly basis and may even count high cost or very select items on a daily basis. Inventory sheets are most effective when organized by storage area. For example, a separate sheet may be used for each of the following areas:

freezer, walk in refrigerator, dry goods, chemical stores and beverage alcohol. Categories for inclusion on the inventory sheet are product name, purchase unit, and purchase unit count. If the inventory is being calculated manually, the inventory sheet will also include a column for the purchase unit price multiplied by the purchase unit count. Many operations use a computer software program that calculates the value of the ending inventory after the purchase units counts have been entered into the system. To be accurate, unit costs must be updated in the computer with each change in price from the supplier.

A perpetual inventory is one that is ongoing and is continually up to date. It can be tracked manually or with a computerized inventory management system with a manual system, a bin card is placed on the front of the shelf for each of the items stored there. The bin card contains the name of the item, how it is packaged, and, preferably, the item, how it is packaged, and preferably, the item number corresponding to the number used when ordering from the vendor. As items are removed from inventory, the date, number of the item, and the initials of the person taking the item are recorded on the bin card. Conversely, as the items are received to replace depleted stock, the amount added is recorded on the bin card, along with the date and the initials of the person who stored the item. The final column on the bin card keeps a running total of the items as they are issued for use or are replenished. Advances in technology have allowed food services operators to utilize software that tracks each ingredients of each menu item to tally up to the minute inventory counts. When using a computerized inventory management system, as stock is received the items and their quantities are entered into the system. An item is sold, the quantities of each item are automatically subtracted from the amount in storage.

CHECK YOUR PROGRESS- IV

Q.1 Write a note on Inventory.

Q. 2 Distinguish between physical and perpetual inventory.

Q. 3 Explain re-ordering level.

2.7 PRODUCTION

Production planning and scheduling are vital to the production of high-quality food and are important management responsibilities. The true test of the planning, however, is the production of food that is appealing to the clientele, prepared in the appropriate quantity, microbiologically safe, and within budgetary constraints. A knowledge of basic food preparation techniques and equipment will assist the foodservice manager in planning and achieving these goals.

Cookery is defined as a ―chemical process‖ the mixing of ingredients; the application and withdrawal of heat to raw ingredients to make it more easily digestible, palatable and safe for human consumption. Cookery is considered to be both an art and science. The art of cooking is ancient. The first cook was a primitive man, who had put a chunk of meat close to the fire, which he had lit to warm himself. He discovered that the meat heated in this way was not only tasty but it was also much easier to masticate. From this moment, in unrecorded past, cooking has evolved to reach the present level of sophistication. Humankind in the beginning ate to survive. Now also we still eat to survive, however efforts have been made to make the food more enjoyable like cooking meats and vegetables in different ways to make them more easily eaten, digestible and to make them more attractive, palatable and to have wider choice. This is the art associated with the preparation of food. However it is not solely the artful manipulation and combination of food which results in good tasting products. Nutritional aspects, the effects of combining various foodstuffs and the use of modern technology can be considered the science of cooking. The ―how of cooking‖ can be considered to be the art and the ―why of cooking‖ could be the science. Balancing the art and science must be the goal of every professional chef.

2.7.1 Aims and Objectives of Cooking

Food is any substance consumed to provide nutritional support for the body. It is usually of plant or animal origin, and contains essential nutrients, such as carbohydrates, fats, proteins, vitamins, or minerals. The substance is ingested by an organism and assimilated by the organism's cells in an effort to produce energy, maintain life, or stimulate growth.

Historically, people secured food through two methods: hunting and gathering, and agriculture. Today, most of the food energy consumed by the world population is supplied by the food industry, which is operated by multinational corporations that use intensive farming and industrial agriculture to maximize system output.

Primitive man made use of anything near his and to satisfy his need and" accidents and extreme hunger made many foods appetizing to our ancestors which might not appeal to us today if we had not inherited the taste for them. According to W. Mattieu Wilhams, "the fact that we use the digestive and nutrient apparatus of sheep, oxen, etc., for the preparation of our food is merely a transitory barbarism." Other authorities agree with him that the art of cooking may sometime be so developed as to enable us to prepare the coarser vegetable substances in an easily assimilated form without depending upon animals as middle men. The art of the cook has done much to make un- likely food materials attractive, but there is another phase of the question, and that is the problem how to make what we know is nourishing both pleasant and attractive. The cook of the past had to make the best possible use of the meager nutrients at hand. The cook of the present and future has the harvests of the whole world within reach all the year around. How shall such abundant material be combined to satisfy the palate without overloading the digestive organs? More important still, how shall we select and prepare foods that they may produce sufficient energy in the human body for the great tasks awaiting it in our complex civilization.

2.7.2 Why and how people eat?

All humans eat to survive. They also eat to express appreciation, for a sense of belonging, as part of family customs, and for self-realization. For example, someone who is not hungry may eat a piece of cake that has been baked in his or her honor. People eat according to learned behaviors regarding etiquette, meal and snack patterns, acceptable foods, food combinations, and portion sizes. Etiquette refers to acceptable behaviors. For example, for some groups it is acceptable to lick one's fingers while eating, while for other groups this is rude behavior. Etiquette and eating rituals also vary depending on whether the meal is formal, informal, or special (such as a meal on a birthday or religious holiday).

A meal is usually defined as the consumption of two or more foods in a structured setting at a set time. Snacks consist of a small amount of food or beverage eaten between meals. A common eating pattern is three meals (breakfast, lunch, and dinner) per day, with snacks between meals. The components of a meal vary across cultures, but generally include grains, such as rice or wheat; meat or a meat substitute, such as fish, beans, or paneer ; and accompaniments, such as vegetables and pulses. Various food guides provide suggestions on foods to eat, portion sizes, and daily intake. However, personal preferences, habits, family customs, and social setting largely determine what a person consumes.

What and how people eat is determined by a variety of factors, including economic circumstances, cultural norms, and religious restrictions. For example Indian Brahmin family sits on the floor and eats from a cloth laden with regional delicacies.

Aims and objectives of cooking food are to develop:

- Various taste development
- Various Textures
- Various consistencies
- Techniques used in pre-preparation
- Techniques used in preparation

The term cookery, as has been explained, means the preparation of both hot and cold dishes for use as food, as well as the selection of the materials or substances that are to be cooked.

2.7.3 Importance of Cooking Food

Food is an integral requirement of human body because it provides energy and insures growth and development. Human being can be classified into two types according to their eating habits. They are:

- Herbivorous- they are vegetarians who thrive upon plants and plant products, milk, butter, curd etc.
- Omnivorous- they eat both plant and animal and their products

So the food people eat need to be transformed into chewable substance so that the body can absorb the nutrients and minerals from it. Human eat food with mouth and the parts that paly important role in ingestion of food are teeth, tongue and esophagus. Some food are easily broken and become digestible, like cucumber, radish, cherry etc. but some needs to be cooked, like potato, brinjal, meat, fish etc. So we can say cooking is an important work that has to be performed before eating too many of the food. Human cook for for many reasons which are benefitted to the body process, which may be:

1. To soften the fibers to hasten and fasten the process of mastication, digestion, absorption or nutrients, assimilation and elimination of the waste. For instance, the hard grains, such as wheat, and the dried vegetables, such as beans, cannot be readily digested unless they are softened by cooking. But while cooking makes such foods more digestible, it renders others more difficult of digestion, as in the case of eggs, the degree of digestibility depending somewhat on the cooking method used and the skill of the cook. An egg in an almost liquid form, or when only slightly cooked, as a soft-boiled egg, is more easily digested than when it becomes hardened by cooking. Then, too, a properly prepared hard-cooked egg is more digestible than an improperly cooked one, although the degree of hardness may be the same.

2. To make the food soft, tasty and eatable. This is true of such foods as meat, cereals, and many vegetables, which would be very unappetizing if they were eaten raw.

3. To destroy all the harmful microorganisms present in the food. Cooking sterilizes foods either partly or completely. Many foods need partial or complete sterilization for safety. They must be completely sterilized if the germs that produce fermentation or putrefaction and thereby spoil food would be destroyed. This is done when fruits and vegetables are canned for keeping. Foods that are exposed to dust, flies, and improper handling should be thoroughly cooked in order to destroy any pathogenic germs that might be present. By such germs are meant disease-bearing germs. They differ from germs that produce fermentation and putrefaction, or spoiling, and that must in general be considered as a help, for these play an important part in the raising of bread and the preparation of various foods, as is pointed out later.

4. Cooking develops flavor in many foods. In the case of some vegetables, the flavoring substance is given off in the air by certain methods of cooking and a better flavor is thereby developed.

5. To change the characteristics of certain enzymes and minerals to more usable form.

6. To introduce new variety and taste. The same food may be cooked by various methods and be given very different tastes and appearances; on the other hand, it may be combined with a large number of other foods, so as to increase the variety of the dishes in which it is used. The large number of recipes found in cook books shows the attempts that have been made to obtain variety in cooked dishes by the combining of different foods.

7. To fortify with new nutrients. For example salt is added to food because salt has iodine in it, so food is fortified with iodine. Some readymade foods like honey, jams, and jellies are fortified with minerals by the process of cooking.

8. Delays spoilage - enzymes which cause natural spoilage are destroyed at 60°C as they are protein in nature.

2.7.4 Types of Taste

Animals, specifically humans, have five different types of tastes: sweet, sour, salty, bitter, and umami. As animals have evolved, the tastes that provide the most energy (sugar and fats) are the most pleasant to eat while others, such as bitter, are not enjoyable. Water, while important for survival, has no taste. Fats, on the other hand, especially saturated fats, are thicker and rich and are thus considered more enjoyable to eat.

Sweet: Generally regarded as the most pleasant taste, sweetness is almost always caused by a type of simple sugar such as glucose or fructose, or disaccharides such as sucrose, a molecule combining glucose and fructose. Complex carbohydrates are long chains and thus do not have the sweet taste. Artificial sweeteners such as sucralose are used to mimic the sugar molecule, creating the sensation of sweet, without the calories. Other types ofsugar include raw sugar, which is known for its amber color, as it is unprocessed. As sugar is vital for energy and survival, the taste of sugar is pleasant. The stevia plant contains a compound known as steviol which, when extracted, has 300 times the sweetness of sugar while having minimal impact on blood sugar.

Sour: Sourness is caused by the taste of acids, such as vinegar in alcoholic beverages. Sour foods include citrus, specifically lemons, limes, and to a lesser degree oranges. Sour is evolutionarily significant as it is a sign for a food that may have gone rancid due to bacteria. Many foods, however, are slightly acidic, and help stimulate the taste buds and enhance flavor.

Salty: Saltiness is the taste of alkali metal ions such as sodium and potassium. It is found in almost every food in low to moderate proportions to enhance flavor, although to eat pure salt is regarded as highly unpleasant. There are many different types of salt, with each having a different degree of saltiness, including sea salt, fleur de sel, kosher salt, mined salt, and grey salt. Other than enhancing flavor, its significance is that the body needs and maintains a delicate electrolyte balance, which is the kidney's function. Some canned foods, notably soups or packaged broths, tend to be high in salt as a means of preserving the food longer. Historically speaking, salt has been used as a meat preservative as salt promotes water excretion, thus working as a preservative. Similarly, dried foods also promote food safety.

Bitter: Bitterness is a sensation often considered unpleasant characterized by having a sharp, pungent taste. Dark, unsweetened chocolate, caffeine, lemon rind, and some types of fruit are known to be bitter.

Umami: Umami, the Japanese word for delicious, is the least known in Western popular culture, but has a long tradition in Asian cuisine. Umami is the taste of glutamates, especially monosodium glutamate or MSG. It is characterized as savory, meaty, and rich in flavor. Salmon and mushrooms are foods high in umami. Meat and other animal byproducts are described as having this taste.

2.7.5 Types of Texture

Texture is described as the characteristic of prepared food, which purely depends in the order of preparation, their mixing, cooking, stirring and serving. A correct texture has to be brought about in the food. The chef should not only know the correct texture, but should be able to produce the same in the food. The various textures which are listed down, are difficult to explain in words, they should be felt and understood better. There are very thin differences between some of these, which one should learn better during practical. A food can have the following textures:

1. **Firm and close** – biscuits and plain short pastries can explain this texture. Raising agents are used while preparing these, but they do not make the product very light or brittle. In fact they are hard as a result of many tiny air bubbles created by raising agents. But the biscuits are not too hard either, because of the fat included.

2. **Short and crumbly** – nankhatai and tarts are good examples of this texture. Fat included is more than that in biscuits, so it breaks more easily into smaller particles.

3. **Spongy** – Swiss rolls, sponge cakes, idli and dhokla are spongy. A soft, elastic texture due to incorporation of more air results in this texture.

4. **Light** – Madeira cake has plenty large holes in it, making it ‗light'. It is firm, but not hard and tough. It is neither as short as a tart nor as spongy as a Swiss roll.

5. **Flaky** – chiroti, lacchha paratha, chicken or veg puffs and khara biscuits are flaky. Thin, crisp layers are formed by spreading fat in between two layers of dough which get separated during baking / frying and remain separated due to air pockets. The flakes by themselves should not be tough / hard. Ideally the layers break easily and melt in the mouth.

6. **Coarse** – large and uneven holes are a result of too much of the raising agent or too little liquid. This is not a good texture to have in food; in fact, it is something to be avoided. Such cakes and other products are sunken at the centre.

7. **Tough** – too much liquid, over mixing, incorrect mixing, too little fat and long cooking time could result in toughness in food. Mostly, like the coarse texture, this also is to be avoided.

8. **Hard** – another texture which should be avoided as far as possible. In fact, it is considered to be a fault in the product. Too much pressure while mixing, excessive liquid in the product and incorrect quantity of fat result in this texture. Air that is incorporated gets removed out of the mixture, making the final product hard.

9. **Light and smooth**- With plenty of holes and fairly even size- neither too flaky nor too tough. E.g. Madeira cake, soufflé, custards.

2.7.6 Types of Consistencies

Like different textures found in solid foods (which are mentioned above), different consistencies' are found in liquid foods. Some substances flow readily, others resist flow and some require force or weight application to start flow. The concept of consistency is closely related to viscosity.

Factors affecting consistency of liquid are –

- Concentration (of thickening agent)
- Temperature
- Degree of dispersion
- Mechanical treatment
- Time (how long is it after preparing)

Generally speaking, the following consistencies could be found in liquid foods –

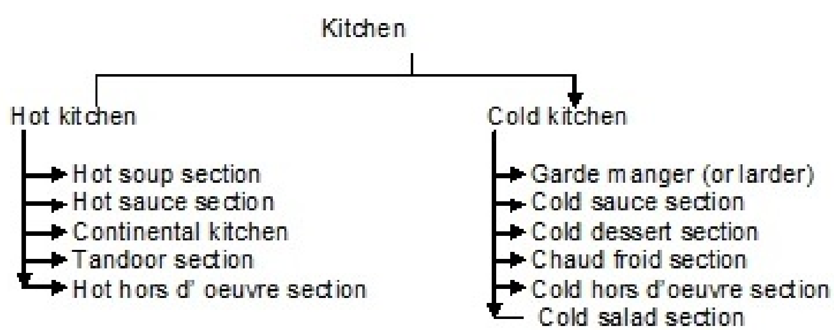
a. Pouring – like water and milk. These do not show any resistance and flow easily /readily. Stocks and some thin soups like consommé are examples of ‗cooked' liquids having pouring consistency.

b. Coating – when a starchy thickening agent is mixed with a liquid, and the mixture is heated, the starch gelatinizes. In case of a protein as a thickening agent, it coagulates when exposed to heat. In both these cases, the liquid starts to thicken. If a spoon is dipped in this mixture, it starts coating the spoon. A thin film of the mixture could be seen in the beginning. Later on it goes on becoming visibly thicker. Depending upon one / more factors listed before, the thickening will take place up to a certain point. While making basic custard, this will be understood better. Here, liquid is milk and thickening is egg yolk. Similar coating consistency could be observed in kadhi where liquid is buttermilk and thickening is gram flour (besan) The liquid is proportionately more than the flour or thickening agent.

c. Dropping – when a liquid is added to dry flour, it forms lumps as only some flour (granules) gets combined with liquid. Later, when added more liquid, it converts into dough and with some more liquid, it turns into ‗batter'. Here, the amount of solid (flour) is more than the liquid. For example, a cake mixture of fat, sugar, egg and flour is moistened with water or milk. Only that much liquid is required which will make the mixture fall out in a big moist smooth lump. The liquid should be dispersed well to get a smooth mixture. When you make cake batter in the bakery class, you will understand it better. Also, next time when you are waiting for your (batata) vada-pav, don‘t forget to observe the vender making and using the batter.

2.7.7 The production area

The term kitchen layout is related with the physical set up of kitchen with required working stations or platforms, receiving & serving areas, placement of medium & heavy equipments & so on. An unplanned kitchen will create lots of problem for the kitchen staff as well as disturb to the day to day kitchen operation. Kitchen is consists of several sections (like soup section, pantry section, sauce making section, vegetable section, poultry section & so on) & all sections supports equally to the entire kitchen operation. If broadly speaking, kitchen can be classified into two parts, these are – hot kitchen & cold kitchen.



2.7.7.1 Hot preparation area (or kitchen)

The modern kitchens in good hotels are air conditioned, well ventilated, spotless & a pleasant place in which to work. The kitchen is the main production centre in a hotel. Hot kitchen has several sections/parts /sub-divisions like – roast section, soup section, and broiler section, fry/cook section, tandoor section & so on.

Each of these sections operates with separate equipments & supplies. Each work is a self contained unit, but not separated from others by walls or visual distractions, workers have no isolation. They are accessible to the necessary supervision & co ordinations. Each work centre has its own crew workers, each of whom is trained to perform all the functions of that particular work centre.

Equipments at each work centre needs to be installed with a view to worker’s convenience. All work surfaces, value control & appurtenances must be easily accessible & at right levels. The space allocated to individual work stations needs to be balanced between enough space & not too much. The greater the available space, the more workers have to more from one activity to another & thus, the more time consumed. Equipment installation must also consider worker's both; comforts & efficiency.

The relationship of each work centre must be carefully designed to flow from station to station & to the service area. The placement of facilities, the relationship to storage area & the dining area & the sequence within the total meal need to be carefully planned. The kitchen should be able to operate as a production line. The food preparation should have smooth flow of work with successive stages of production accomplished as material move along. A detail description in relation to flow of work is given latter in this unit.

2.7.7.2 Cold preparation area (or kitchen)

In the modern commercial kitchen, the "Cold Kitchen, Larder Section or Garde Manger section" is responsible for preparing cold foods like hors d' oeuvres, canapés, cold meat & fish preparations, cold sauces, salads & salad dressing.

Planning the layout for a garde manger department can be a complex task. Unlike other departments that can depend on a basic menu and basic work load, the Garde Manger department is unique in its operation. On a daily basis the Garde Manger department may handle its own butchery, its own bakery, its own sauce making, its own frying , smoking of fish and cold meats, all the decorating including tallow and ice sculpture , plus a complete line on charcuterie products such as galantines and pates. The Garde Manger department can relate to a food service facility in three ways:

- On a pick up Basis
- On a distribution basis
- On a combination of the two bases

When a Garde Manger department executes food order on an ala carte basis, this is known as Pick up. This system operates in an unpredictable fashion, since the number and timing of orders is not known in advance. Work load is set depending upon the dishes listed on the menu. When the Garde Manger department executes food orders in advance for a known quantity, to be delivered at a certain time (Parties, banquets) this is known as the distribution basis. The main problem here is workloads will be different each day depending upon booking, functions etc., For this reason it is difficult to establish an appropriate mise-en-place on a daily basis as it is bound to vary.

In the combined system represents a combination of the above two systems. This layout is appropriate when the garde manger department is located near both a la carte and banquet facilities. This kitchen performed various major functions like -

To prepare forcemeats. Forcemeats are ground up meat(s) which combined with seasonings and other ingredients and used for stuffing.

To prepare cold preparations. Cold preparation includes variety of preparation like salads, gelatin, canapés, charcuterie, etc. A brief description of various cold preparations are given below"

Prepare cold hors de oeuvres. Hors d' oeuvres are consider as a first course in French classical menu which eaten as a appetizer meal. Cold hors d' oeuvre includes – salads, shrimp cocktail, cold canapés, etc.

Prepare salad. Salad is a dish of raw or cold cooked foods usually dressed & seasoned, served as an hors d' oeuvres, side dish, etc. There are variety of salads which can be broadly classified into three parts, these are – green salad, plain salad & mixed salad.

Green salad It consists of green leaved raw vegetables such as lettuce, endive, chicory, watercress, dandelion leaves, spinach, etc. These salads (those can be cooked) are served as hors d' oeuvres or as an accompaniment to grills, omelets, meat, poultry, game, etc. They are usually dressed with various kind of dressing.

Plain salad It consists of a basic ingredient either raw or cooked but always served cold with a cold dressing. The basic ingredients can be a vegetable, meat or selfish & the range of various variety. French beans, carrots, celery, cauliflower, lentils, red or white cabbage, potatoes, rice, crayfish, crab, cold chicken, etc.

Mixed salad These are more elaborate dishes combining various ingredients of contrasting (but complementary) flavours, textures & colour. Mixed salad can include exotic ingredients such as truffles, foie gras or lobster medallions or simple ones but should always with decoration. Mixed salads are served as starters but can also accompany hot or cold roast meats.

Prepare gelatin. Gelatin is a colourless, odourless substance which extracted from the bones & cartilage of animals & also from certain algae. Gelatin can be either in the form of powder or translucent leaves. The gelatin is soaked in cold water until it swells & is then dissolved either over or with a little boiling water & blended with the mixture for which it is intended. Gelatin is used for making jellies, numerous cold or iced desserts & also for the fining of wines & fruit juices. It is also used in industrial confectionary.

Prepare aspic jelly. Aspic jelly is a translucent savoury preparation which solidifies on cooling because of the gelatinous substance that it contains. Aspic jellies are prepared from basic white or brown stocks (meat, poultry, game or fish). They are produced naturally when the stock is prepared with items rich in gelatine (like veal knuckle, fresh bacon rind, poultry or fish trimming). Aspic jellies are used in particular for preparing such cold dishes as aspics & terrines; as a garnish for cold dishes (chopped or cut into triangles) & to glaze cold preparations.

Meat, poultry & game aspics stocks are reserved for aspics, terrines, etc. of which the dominant element is the same that of the jelly. For aspic fish or shellfish gelatin in powdered or leaf form is dissolved in strained & clarified fish fumet.

Prepare sandwich. Again it is the responsibility of larder to provide variety of sandwiches as per the guest order or top level's instruction. Sandwiches are the combination of two slices of bread enclosing a plain or mixed filling based on cooked meats, raw vegetables or cheese, then cut into thin slices or small pieces. Sandwiches are usually made with tin loaf bread (whole slices with or without crusts, sometimes cut into triangle or rectangular shape after filling).

Prepare canapés. Canapés are an appetizer, specifically a small piece of bread with a highly seasoned topping. A slice of bread cut into various shapes & garnished. Cold canapés are served at buffets or lunches or with cocktails or aperitifs. Few examples of cold canapés are given below:

- Canapés a la bayonnaise
- Canapés aux anchois Canapé with anchovies
- Canapés aux asperges Canapé with asparagus
- Canapés aux crevettes Canapé with shrimps or lobster
- Canapés au saumon fume Canapé with smoked salmon
- Canapés au cresson Canapé with watercress
- Canapés a la danoise Danish canapé
- Canapés arlequins Harlequin canapé

Prepare chaud froid. It is a dish which prepared as a hot dish but served as a cold dish. Chaud froids are pieces of meat, poultry, fish or game, coated with brown or white sauce then glazed with aspic. Typically, they form part of a cold buffet but are also served as an entrée.

Prepare charcuterie. Charcuteries are the food products based on pork meats or offal's. The word designates the place where this type of product is prepared. Charcuterie or pork butchery prepared numerous preparations like – cured meats, fresh & smoked sausages, pates, andouilles, hams, galantines, ready cooked dishes & forcemeats.

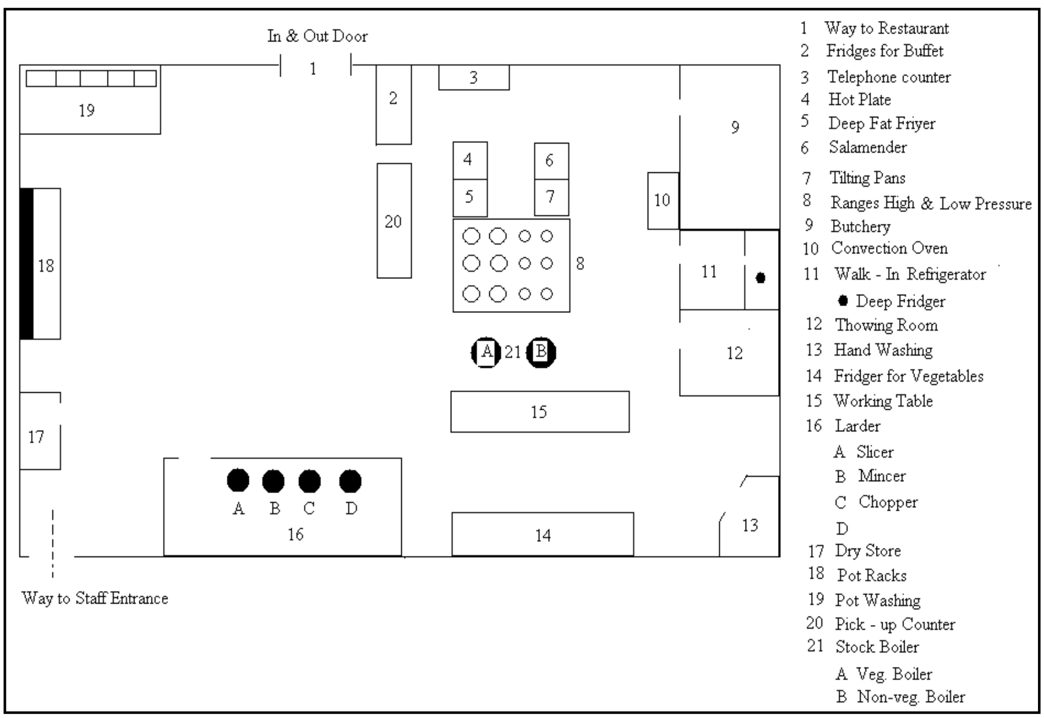
To prepare edible displays. An edible carving includes those items which can be eating after placing.

To prepare non – edible displays. These carvings include – salt dough carving, ice carving & so on which cannot be eating after placing.

2.7.8 Layout of Kitchen

There are various layout of kitchen some of them are described as under:

2.7.8.1 Layout of continental kitchen



Layout of continental kitchen

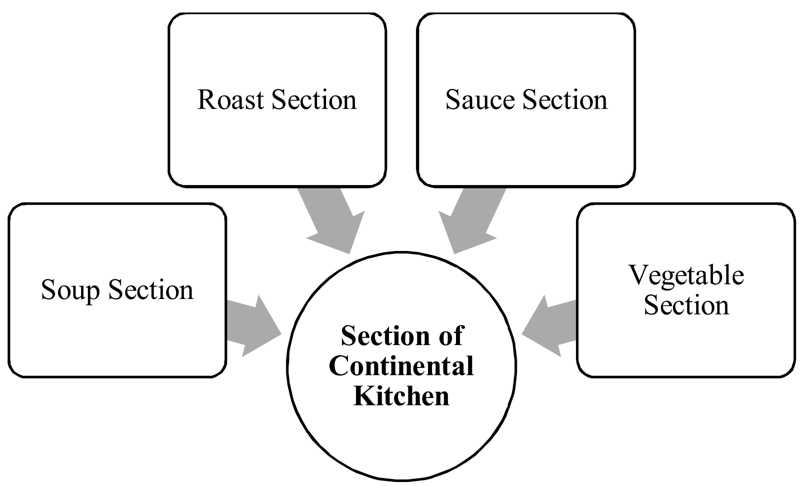
The continental kitchen explores exotic continental delights with skill full chef. The chef de partie (CDP) is responsible for the smooth functioning of the kitchen. He sees that each chef under him is following hygiene in the kitchen. The continental kitchen prepares various dishes like -

Chicken stroganoff	Fillies of chicken in a cream sauce and served on rim of butter
Vegetable au-gratin	Assorted fresh vegetables in a creamy cheese sauce served garnished

The continental section or kitchen also prepares authentic sandwich and burgers for the restaurant & other dining room. For example:

Uncle Jam's burger	Old fashioned burger served with coleslaw salad and French fries
Juicy Chicken burger	An all time favourable served with French fries
Cheese burger	Vegetable topped with a slice of cheese served with coleslaw and French fries

The continental chef prepares delicious dishes such as soups & salads. It also gives ice cream for the sweet course and also fresh juices, milk shakes, cold coffee, lassi etc. for coal experience. It also provides hot beverages such as tea, coffee, Nescafe, bounvita, horlicks, hot coca chocolates etc. The continental kitchen is a very big term which consists of several sections & all section plays an equal role in the smooth running of kitchen operation. These sections are as follows -



SOUP SECTION

- This section is responsible for preparing various types of stocks like – fish, chicken, or veal stock.
- To make ready mise – en – place for various soups
- To prepare basic soups like – consommé, cream, puree & broth.
- To prepare special soups like – bisque, French onion, shorba, other featured on the menu.
- To prepare appropriate garnishes for the soups.

ROAST & SAUCE SECTION

- This section is responsible for roasting various vegetable & non vegetable preparations. This section is headed by Rotisserie chef who is responsible for all roasted, grilled, broiled and braised meat preparations, such as steak, chicken or fish.
- After the meat is cooked, the rotisserie (roast chef) will generally carve it or otherwise ensure that it is presented on the plate in a visually appealing manner. He or she also prepares gravies, and may prepare some deep fried meat or fish.

SAUCE SECTION

- The sauce section is responsible for preparing sauces, sautés, stews and possibly even hot hors d'oevres, all to order. Generally, saucier is the highest ranking of all the station chef positions.

VEGETABLE SECTION

If this section is combined with sauce section then it also prepares basic sauces like – béchamel, veloute, Espagnole, hollandaise & tomato sauce.

- To cook meat, poultry & game as & when required in various forms like – grilled, roasted, fried & stewed.
- To prepare all the fish & shell fish items in various forms like - grilled, fried, poached, & baked.
- To prepare various accompaniments & garnishes for meat & fish
- To prepare all kinds of vegetables, pasta, rice, noodles, etc.
- To prepare special vegetarian delicacies

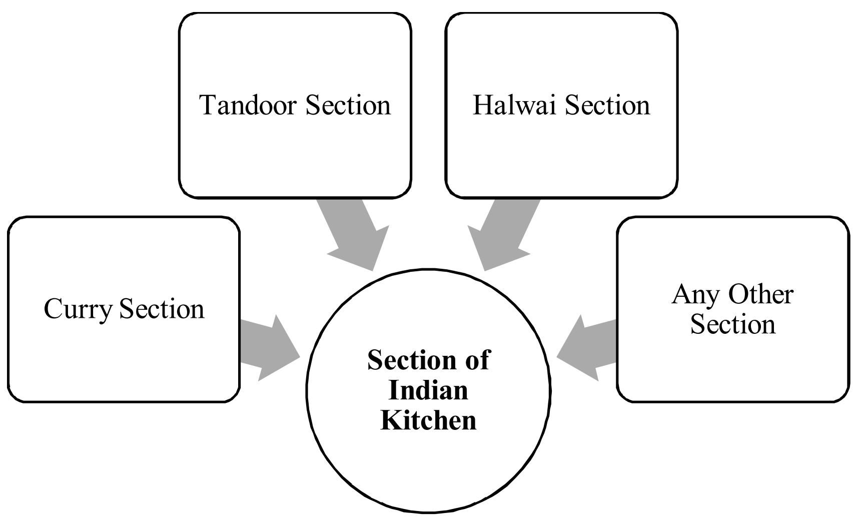
Continental kitchen equipments

Griddle. These are flat, smooth, heated surface on which food is cooked directly, foods like – pancake, French toast, hamburgers, etc.
Convection oven. These ovens contain fans that circulate air & distribute the heat rapidly throughout the interior.
Microwave oven. These ovens are also used for heating. This appliance generates high-frequency waves to quickly heat or cook food
Steam – jacketed kettle. These are also called as "Steam Kettles". These kettles are used as stockpots but heated from bottom as well as from sides.
Tilting frying pan. Tilting fry pan is a large, shallow, flat bottom pan that is used to fry, sauté or brown the foods. It is also known as tilting brazier & used as a griddle, fry pan, stockpot, sauce pot, bain marie or steam table.

Potato peeler. An implement with a sharp groove and a serrated edge on one side to peel potatoes and other firm fruits and vegetables. The serrated edge can also be used for creating ridges for decorative purposes.
Deep fat fryer. It is a heated vessel for frying food by immersing in hot fat or oil, as opposed to shallow frying in a frying pan
Griller. There is a large range of grilling equipment available and these include – salamander, griddle plate, charcoal grill, etc.
Others. Like - sink unit, cooking ranges, slicer, sauce pan, roast pan, food mixer, salamander, bain marie, microwave & so on.

2.7.8.2 Layout of Indian Kitchen

Indians live up to their varied cultures and habits. Unity and diversity is the main thing we can attribute for Indian cooking. Rice had been the choice of food through the different monarchies, nawabies, sultanas, zaniness etc. Today India is lagging behind to catch up with international cuisines. Like continental kitchen, the Indian section is also divided into three sections. These are:



Curry section. This section is responsible for preparing various meat, chicken, paneer & vegetable curries, lentils, rice dishes & so on.

Tandoor section. This section is mainly responsible for preparing marinades, roast kebabs, prepare dough for various breads, bake breads & so on.

Halwai section. This section prepares variety of sweets (such as jalebi, gulab jamun, emarti, etc.), variety of snacks (like – samosa, assorted pakodas, etc.) & chutneys (like mint chutney).

Like any other cuisine's kitchen equipments, Indian kitchen also have several specific equipments without which Indian kitchen will never give its full potential like -

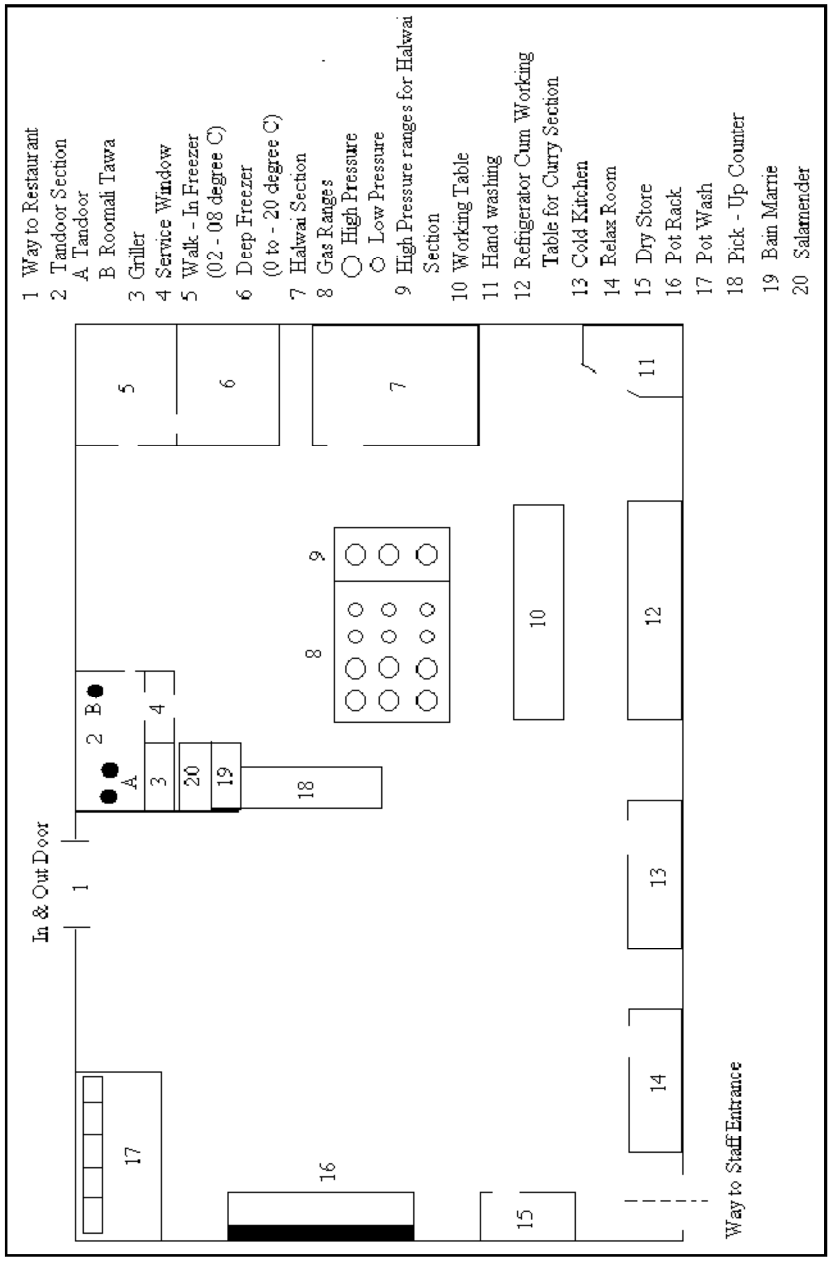
Tandoor	:	It is an Indian clay oven used to make specialty foods at high Temperatures like tandoori chicken.
Dough making machine	:	It is also called as "Dough Kneader machine" that used to mix the dough into homogeneous mixture.
Sigri	:	A kind of stove which used for cooking, especially in North India. The fuel used is usually coal and wood.
Chappati puffer	:	It is used to puff the Indian bread (or chappati, sometime also used to make dosa). It is also called as "Chappati plate puffer".
Range with tawa	:	It is used for making Indian breads, for instance - roomali roti.

2.7.8.3 Layout & placement of cooking equipments

Refrigerators: Generally, refrigerator should be at the beginning of an assembly line or near the preparation area in a block-style kitchen. Under-counter or worktop coolers can be used to combine the work or cooking area with refrigeration for ultimate ergonomics. However, in an energy-efficient kitchen, refrigeration and ice machines will be separated from cooking equipment as much as is pragmatically possible.

Ice machine: The ice machine should be placed where it is most needed. Generally, this is near the entrance to the kitchen where servers can access it to fill glasses, or near the beginning of an assembly line if ice is often needed for food preparation. If ice is needed in two places, you can use ice totes or an ice caddy to transfer the ice from the machine to another area of the kitchen

Blast chiller last: A blast chiller will quickly cool down hot food so that the food can then be transferred to a refrigerator or freezer. The blast chiller can be placed at the end of the cook line, instead of at the beginning with the rest of your cooling equipment. It keeps kitchen workers from having to carry hot food items across the kitchen, which poses a threat to employee safety



Layout of Indian kitchen

Walk in freezer. A walk-in cooler or walk-in freezer is its own zone within the kitchen. If you think you need a walk-in but do not have the space for one, keep in mind that walk-in coolers can be custom-built, inside or outside the building. They can be as small as 5’ x 6’, or as big as you need them to be.

Prep Tables &Work Tables. Because it usually requires extra space for preparation, food preparation equipment such as food processors, meat slicers, mixers, dough presses and grinders are usually best placed near work tables, cutting boards or the preparation counter.

Ranges, griddles & char-broilers. Range-tops, griddles & broilers are heavy-duty equipment & need to be placed near the center of the vent hood to avoid spilling fumes & heat into the kitchen. Oftentimes, this is also an ergonomic arrangement, since restaurant ranges & griddles are usually used to cook a wide variety of menu items & therefore deserve to take center stage in the kitchen.

Microwaves. Commercial microwaves are extremely versatile. They can be used to thaw, boil, cook and reheat. Depending on your application, it is good to have multiple microwaves, with one or more at each end or zone of the kitchen.

Simmering utensils. Like steam kettles, tilting skillets and stock pot ranges are often used for simmering or boiling liquids such as soups, stews, broths and water. If you are using them for this purpose, keep them near one end of your cooking block. They do not need to be monitored as carefully as a range or griddle. Also, they do not put off a lot of heat, so they can be near the edge of the hood.

Salamanders or cheesemelters. Salamanders and cheesemelters are used during the final stages of preparing a dish, to brown and toast foods or to melt cheese. For this reason, good locations for them include the following:

- The end of the cooking block near the warmers
- Near the counter where servers will pick up food to take to the table
- Mounted above the oven/range or the griddle, so that finished foods can be immediately transferred for light browning or cheese-melting

Steam tables. Steam tables are often used in the kitchen to keep ingredients warm and safe before they are added to a dish. Place your steam table in the preparation area or across from the cook line. For example, a fast-casual Mexican restaurant might put its steam table directly across from the griddle, beside its worktables.

Workers can then use it to assemble the preheated beans, chili and ground beef to form burritos and enchiladas, which can then be transferred directly to the griddle. In cases where steam tables are used to serve pre-prepared dishes directly onto the plate, they should be placed at the very end of the cook line or near the edge of the cooking block.

Warmers. In general, countertop warmers and holding cabinets are used to hold prepared foods. Since they are usually not needed until the final stages of food preparation, they should be kept on the edge of the cooking and prep areas. In open or exhibition kitchens, overhead warmers or heat lamps should be placed on the counter between the kitchen and the front of the house to keep plated food warm during the transition from chef to server.

Dishwashing. Usually, the dish room or ware washing area will be its own zone in the kitchen, and utility carts or dish carts are used to transfer dinnerware, soiled pots, pans and utensils from the kitchen or dining room to the dish room. Every commercial kitchen is required to have a three-compartment sink. In case the commercial dishwasher breaks down, it serves as a back-up washing station.

Others equipments. Other equipments like- flaming broilers, indoor grills and ranges can take center stage in an exhibition kitchen. Customers will find the flames exciting. This is a perfect example of how you can sell the sizzle, rather than the steak. Rotisserie ovens are another visually appealing piece of cooking equipment that you can put on display.

2.7.9 Flow of work

The flow of work is discussed under heads like food preparation area, food service area, and wash-up area.

2.7.9.1 Food preparation areas

The area where foods are processed & prepared for final cooking is called as "Food preparation area". Only required equipments should be placed in preparation areas like in wet preparation areas for fruit & vegetables (usually located near the vegetable stores), equipments includes sinks, stainless steel benches, food mincer, potato peeler machine, chipper, slicer & shredder. A well designed food preparation area should allow you to make changes to the menu without having to reorganize the equipments.

2.7.9.2 Cooking areas

It is an area where foods are finally cooked & make ready for the final service. Equipments in these areas are usually grouped into island sites with benches between or on each side. For example – equipments like pressure steamers, tilt pans & stockpots is grouped together near floor drains while equipments like griddle, fry pans & char-grills is positioned together near ventilation to remove heat & fumes.

2.7.9.3 Service areas

Service areas are platform or place where foods are kept after final cooking, so that steward come & receive the prepared food & serve to the guest. A heating or cooling provision or facilities is necessary in service area, so that food can be keep hot or cold until it is not pick – up by the waiting staff. Major equipments includes – bain marie, hot press or refrigerated case, it is positioned near the dining room entrance. Beverage & toast making facilities are located near the service section for quick & easy access by steward.

2.7.9.4 Wash up areas

Wash up area is also called as "Dish washing area or dishes cleaning area", this area is used to wash –up the dirty kitchen equipments & utensils. In large establishment, it is separate from kitchen stewarding because pots & pans are washed in separate areas or in areas near to their use; it depends on the size of the kitchen. Equipments located in wash area include – dishwasher, large sinks, stainless steels benches, food disposal unit, rubbish bins & cleaning equipments. The function of wash area is very large which explain in detail after the completion of this topic. Wash up area plays a very important role in flow of work by providing back up of cutlery, crockery, glassware & hollowware, as & when necessary in the outlet like during heavy rush.

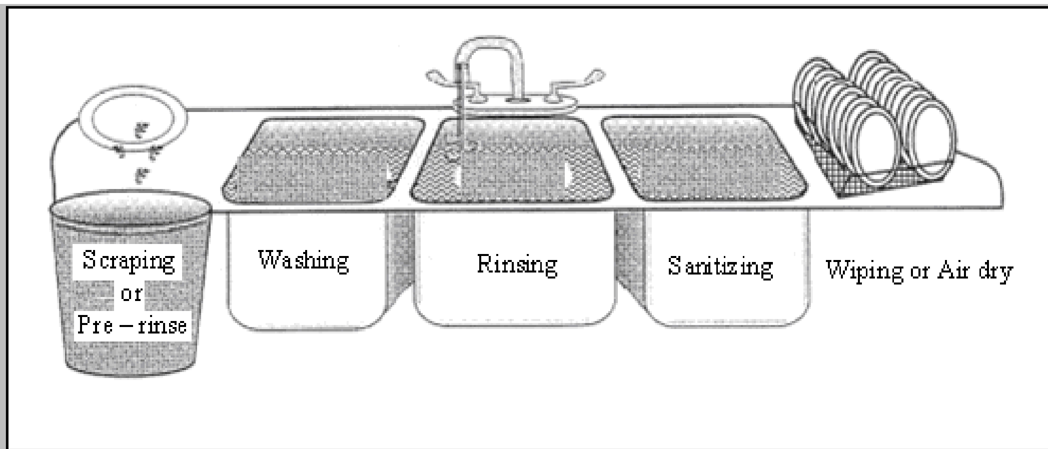
Important

Dish Washing

Service area must be settled correctly so that the staff can work speedily & efficiently. When passing from the food service areas to the kitchen, the wash up area should be the first section the steward enters from the food service area. Staff deposits all the dirty plates, stacking them correctly & placing all the tableware.

The wash-up area comprises of wash sinks, dish washing machines, rack to keep cleaned dishes, and tables. All the utensils are washed, cleaned, dried and keep here for further use. Dishwashing can be performed either manually or mechanically.

Manual dishwashing. In manual dishwashing, the soiled wares are wash & rinse by hand. The entire dishwashing from the first stage to the last stage is performed by the individual or group of cleaner with their hand only. In order to perform effective dishwashing, cleaners should perform their work as per the below given instruction:



Before dishwashing	Before starting the dishwashing operation, he / she must remove all the food scraps from the plate or bowls with a scrubber or by hand.
Wash in hot water tank	Now, transfer all scrape free plates or bowls in the hot water tank (water contain detergent). The water should be as hot as the hands can bear (whether gloves are worn or not).
Sterilize the soiled ware	After washing, the plates or bowls are placed into wire rack & dipped into a second sterilizing tank containing clean hot water at a temperature of approx. **75 °C.** The racks are kept for two to three minutes & then lifted out & place on drain board to drain.
Wiping cleaned utensils	During draining, the utensil is almost dry as much as can. Now it's time to wipe with wiping cloths to all utensils in order to remove water spots.

Mechanical dishwashing**.** Nowadays, in dishwashing machines the detergent is automatically fed into the machine, which has continuous operation. In order to perform effective dishwashing, the temperature of water (ideally between 70 – 85°C) must be high enough to kill the harmful bacteria.

There are various types of dishwashing machines available in the market. These machines should be operated as per the manufacturer's instruction. These mechanical dishwashing machines includes - Single tank dishwasher, Conveyor dishwasher, Flight type dishwasher

& Energy saving dishwasher. All machines washing & rinsing temperature guide is given below -

Name of machines	Wash temperature		Final rinse temperature	
	°F	°C	°F	°C
Single-tank dishwasher	165	72	165	72
Conveyor dishwasher	160	71	180	82
Flight type dishwasher	150	65	180	82
Energy saving dishwasher	120	49	140	60

Pot Washing

The pot washing or pan washing is considered as a most lowly of jobs in our industry. It is unfortunate that it has inherited such a stigma, because the importance of this section cannot be overlooked. If kitchen stewarding does a poor work, all concern for sanitation can be thrown out the window. For example, if only pot is contaminated with a strain of infectious bacteria, the infection can spread throughout the entire preparation cycle.

The facilities for pan washing must be provided in or adjacent to the kitchen & dishwashing area. In small restaurants the general dishwashing equipment may be adequate, but a deep double sink with drainer & pan stand is usually required. Generally kitchen pot washing area is used for washing large kitchen vessels which requires to wash separately. In pot washing, what you have to do is to first scrape of any remaining food particles from the soiled utensils, dishes and vessels and then separate each item accordingly.

The small & medium size vessels can wash similarly as of regular dishwashing of cutlery, crockery, glassware. Place the items in the first sink and wash them thoroughly with the detergent/soap solution. After this, you then have to place the items into the second sink, making sure that you rinse them thoroughly. Lastly, place the items into the third sink where they will be sanitized and disinfected. You have to know that you should soak the items for at least two to three minutes in each sink to make sure that they are thoroughly cleansed.

The extra large vessels are usually wash separately then others with the help of pipe or directly under the water tap & remaining process will be same as of above. Pots & other utensils can be cleaned with cloths, sponges or brushes. Experience shows that pot brushes are the most efficient & effective. They clean with a scraping, as well as a rubbing, action & are, therefore, more efficient. The soiled or dirty particles can be removed with nylon pad or of stainless steel pad.

2.7.10 Production Planning and Scheduling

Production planning is discussed as under:

2.7.10.1 Production planning

It can also be termed as "Meal Planning". in it, you need to plan that which dishes or food (including vegetarian & non – vegetarian dishes) you will offered to your guest or target market, how these dishes being prepared, from which supplier you will purchase your items, in which quantity & on what basis (means daily, weekly, monthly received from the supplies) & so on. All the planning works for various things is deal by executive chef, sous chef in collaboration with various other section's head like pastry chef, pantry chef, butchery chef, etc. In case of menu planning, it is important to involve the food & beverage manager because he/ she are directly involved in guest dealing.

Production planning also involves the method of preparing food for the guest & the procedure of receiving goods from different areas. Generally, a standard recipe is used in food production area because it set standard for using various ingredients, method of preparation, standard cost (including direct as well as indirect cost). It is also important to decide about the production units – means where food will be prepared like in centralized production unit, decentralized production unit (for example satellite kitchen)

Note. Direct cost includes cost of raw material, cost of labour, etc. & indirect cost includes overheads like – fuel cost, match box cost, utensils cost (in the form of depreciation).

2.7.10.2 Production scheduling

Scheduling is related with the staff time table. In simple terms, it means that which staff will prepared food or cook food in which shift, on which day he/she will get off's & who is responsible during the off's. In it, one can also plan about the daily specials (that what will be the special dish during the different days of the week). Right production scheduling helps in reducing the burden or proper distribution of work load among the staff members in different sections.

2.7.10.3 Duty Roster

Duty roster is a list of assigned duties to all staff members for the day. Under duty roaster, the duties are assigned on rota basis which change on daily basis & repeat after the completion of cycle. Duty roster helps in growing the skills & abilities of all staff members in all area of work & at the same time it also reduces the inferiority complex from the staff.

Having a duty roster not only helps to keep your staff members organized and minimizes the amount of time spent on outlet chores but also makes a measurable difference in staff member's attitudes.

Staff	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
Steward A	1	2	3	4	5	6	Off
Steward B	2	3	4	5	6	Off	1
Steward C	3	4	5	6	Off	1	2
Steward D	4	5	6	Off	1	2	3
Steward E	5	6	Off	1	2	3	4
Steward F	6	Off	1	2	3	4	5
Steward G	Off	1	2	3	4	5	6

1 Silver polish
2 Setting sideboard
3 Wiping
4 Linen exchanges
5 Table setting
6 Condiments & cruet sets

2.7.11 PRODUCTION QUALITY AND QUANTITY CONTROL

Production quality and quantity control is discussed as under:

2.7.11.1 Production Quality Control

It means that the quality of food should be up to the mark like one can never use adulterated food (such as rotten vegetables, meat etc.) cause food positing & food born diseases. In connection with food production, various control system have been introduced to assure the food product is of good quality & safe for consumption, for example, Total Quality Management, ISO (International Standard Institution) 9000 , Quality Control System & so on. Among all these, HACCP has a more specific objective that is to make food products that are safe to eat.

Quality Control

(Special reference to **HACCP)**

HACCP (Hazard Analysis Critical Control Point) concept was first developed in the United States by a group of factory workers producing food especially for NASA (National Aeronautical Space Administration) astronauts. There are basically seven principles in HACCP. A brief description of these principles is given below:

Principle 1	Conduct a hazard analysis.
Principle 2	Determine the Critical Control Points (CCP).
Principle 3	Establish critical limit for preventive measures associated with each identified Critical Control Point.
Principle 4	Establish a system to monitor control of the CCP.
Principle 5	Establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control.
Principle 6	Establish procedures for verification to confirm that the HACCP system is working effectively.
Principle 7	Establish documentation (for verification) concerning all procedures and records appropriate to these principles and their application.

2.7.11.2 Production Quantity Control

The Quantity Control Program is to look towards production of food orders in right quantity, this objective is fulfilled by reducing wastage, setting food standard recipe & food portions, monitoring the food production at all levels: sorting, cutting, removing wastage part, preparation method & its portion, in order to minimize measurement errors & to ensure the accuracy of portion pricing. The eventual aim of quantity control is to enhance profit margin.

2.7.12 Budgeting and Forecasting

Budgeting and forecasting is discussed as under:

2.7.12.1 Production Budgeting

The word "Budget" is related with expenses or money required to incurred in future. Expense includes direct as well as indirect expenses, so you can run smooth production operation. Budget is always prepared for a specific period of time after which, we again need to make another budget on the basis of previous budget.

In budgeting process, you need to prepare a statement of expenses which will need you to run your operation smoothly. You need to add all expenses (direct & indirect) from one rupee to thousand rupees, in advance because if you have to manage your entire operation within the stated expenses or budget. Direct expenses include huge expense without which you cannot do anything like – raw material cost, labour cost, electricity cost, fuel cost, etc. Indirect expenses are overheads like cost of knife, chopping board, ladle, frying pan, wire whisk, match box or lighter, etc. These indirect expenses or overheads are directly not related with profitability but support to it.

Developing a workable budget often takes time & fine tuning. At the time of planning a budget, priorities of the expenses are must important. The expenses without which you can't do anything should be placed first then less important & so on. The avoidable (important but not compulsory) expenses should be placed in last.

2.7.12.2 Production Forecasting

Forecasting means prediction or future assumption like if we will do this then this will be the result or outcome. If & then are two important aspect of forecasting. Before making plans, it is necessary to look ahead, to foresee possible & probable outcomes & to allow for them. If you are supervisor then it is good to judge your previous years of experience & knowledge while forecasting for your own operation. Your experience will do a lot in your forecasting. Forecasting have lots of benefits, few of them are listed below:

To deal with uncertainty. As we all know that future is uncertain, nobody knows that what will be happened in the next moments. So, forecasting is very helpful in dealing with future uncertainties. In it, we planned that what we will do (decide a probable solution) if anything wrong happens in the business.

To reduce the future risk. Forecasting cannot fully eliminate the future risk but it helps in reducing the level of risk. With the help of previous year's data & experience we can reduce the risk up to some or large extent.

To achieve your goal. Forecasting is nothing but a kind of planning which helps in achieving the pre- decided target.

To capture potential client. With the help of proper forecasting you cannot retain only your present clientele but also attract to the new target segment or you can attract to potential clientele.

To win competition. By making a effective forecasting, you can win market competition because right forecasting include the consideration towards your competitor during forecasting.

To retain present clientele. Forecasting helps you lot in retaining to your present clientele with you because right forecasting requires thinking about present & future need & want of your clientele at the time of forecasting.

Along with benefits, forecasting has certain drawbacks also. Some of the drawbacks are given below -

- Forecasting require additional time
- Forecasting require extra expenses
- It is not necessary that forecasted data or result will be 100 % accurate
- Forecasting require extra efforts

Volume forecasting

It involves co-relating the production of food with the anticipated number of covers & guesstimating customer preferences. It is a very difficult task because in case of excess food preparation results in wastage of food & money & on the other side, if shortage of food will affect the sales ratio & hotel image (or guest dissatisfaction). Therefore, a proper sales history showing each menu item & their demanded portions over a fixed period of time is maintained. It would help in determining the number of each item to be cooked every day. Volume forecasting would ensure that near exact quantity of food is cooked, keeping wastage to the minimum. This would also enable the purchase department to order the correct quantity of raw materials.

2.7.13 Yield Management

Standard Yield of a particular food item may be defined as usable part of that particular food product after initial preparation, or the edible part of the product after preparation and cooking..

It is achieved when an item is processed in a particular standard method. Standard Yield may vary with each type of food. Standard yield can be calculated two methods: -

1. By initial preparation i.e. after removing the edible parts (before cooking).
2. After final cooking i.e addition or removal of moisture).

Advantages:

1. The exact size and the weight of the item are known.
2. Helps in determining the purchase specification as the expected requirement of the raw material can be anticipated.
3. Acts a double check to the purchase department.
4. It acts as a safeguard against pilferage or wastage occurring in the kitchen as the actual and the potential yields can be compared.
5. Helps in calculating the food cost.
6. Once the standard yield is determined, no one can do any unwanted activity.

Yield Test: Usually yield test is performed on the foods bought – as purchased and need to be converted to ready-to-cook. Items received already pre-portioned do not need any yield test. Some foods you received ready-to-cook might need yield test. The amount of a product that remains after the processing performed as required, within the establishment is called yield or yield percentage. Yield varies with each type of food and also varies from establishment to establishment.

Yield test tells you:

1. Yield per kg, gm, liter, portions and so on.
2. Cost per kg, gm, liter, portion and so on.

Yield tests are pre-cost techniques because you serve an item you determine its cost. It is a pre-control technique because you know the cost of the item and you can adjust the menu-selling price serving them.

Many of the items you purchase are not immediately ready to use when you receive them. They have to have preparation work done. This adds to the cost of the items because it will cost you something to have your employee’s trim, pee or do some work on the items after you receive them.

Basic formula determining the yield% is :

$$\frac{\text{Remaining weight}}{\text{Original weight}} \times \text{Total Yield \%}$$

There are six types of yield testing:

1. **Trim Test**: determines the amount of excess fat or unusable meat that has left by the supplier.

$$\frac{\text{Fully trimmed joint}}{\text{Untrimmed joint}} \times 100 = \text{Trimming yield \%}$$

2. **Boning test:** A product may be partially or fully debased. The weight of the remaining bone may also have to be determined at some future stage of processing.

$$\frac{\text{Boneless weight}}{\text{Bone in weight}} \times 100 = \text{Boning yield \%}$$

3. **Carcass yield:** The yield grade of beef as established by the government normally result in a yield of 52.4% or more for a carcass that has been graded yield 1, down to a yield of 45% or less for those carcass graded yield 5. These figures are based on live carcass weight of the animal

$$\frac{\text{Usable cuts of meat}}{\text{Live carcass weight}} \times 100 = \text{Yield \%}$$

4. **Actual cost:** Price per kg of the carcass divided by yield% will give the actual cost per kg. Normally food service establishments do not buy whole carcasses, so it is necessary to establish yield % of the primal cuts that may be purchased. This can be calculated by:

$$\frac{\text{Usable meat}}{\text{Prime cuts}} \times 100 = \text{Yield \%}$$

   Pork, beef and lamb all have yield grades that may be used to determine the most economical method of buying.

5. **Cooking yield:** All meat shrinks to some extent during cooking process due to loss of moisture and the melting of fat. The amount of shrinkage depends to a great extent upon the final temperature of the cooked product, as well as on the temperature at which the product is being cooked.

$$\frac{\text{Weight after cooking}}{\text{Weight prior to cooking}} \times 100 = \text{Cooking yield \%}$$

6. **Serving yield:** In good establishments, only lean meat slices are served, where in lower-priced establishments ends, shreds, and even unappetizing –looking pieces are also served. The actual number of portion that can be served from a roast multiplied by the portion size determine the net serving weight

$$\frac{\text{Serving weight}}{\text{Original weight}} \times 100 = \text{Serving yield \%}$$

Note: Poultry, fish and shellfish vary in weight and sizes when purchased, thus vary in yield. These products have yield price tags comparison to those of meat.

Example 1

12.500 kg of full sheep carcass is purchased from the market at Rupees 60 per kg. Calculate the yield of the carcass and cost per kg. Trim and washing is 20% per kg.

Answer:

Cost of one kg of the carcass = Rs. 60.00

Therefore cost of the whole carcass = Rs.60.00 X 12.500 =Rs.750.00

Trimming and washing is 20% per kg = 20% of 12.500 kg = 2.5 kg

Therefore amount of edible meat (yield) = 12.500 kg – 2.500 kg = 10.00 kg

Since the cost per kg of the carcass is = Rs 60.00

Therefore total yield cost = 60.00 X 10.00 = Rs. 600

Now the yield cost per kg is = $\frac{750.00}{10}$ = Rs. 75.00

Yield management is the practice of maximizing profits from the sale of perishable items, for example – food sales, beverage sales, room sales, etc. by controlling the price and inventory and differentiating product and service. By seizing control of the sold volume at each price level, Yield management permits a significant augmentation of revenue. Yield management is based on:

- The differentiation of food & beverage price / profit margin.
- Segmentation of consumers, understanding of consumer lifetime value and understanding specific consumer needs
- Differentiation of products and services
- Statistical modeling and forecasting demand

It is also called as "Revenue Management" because it is related with revenue maximization. Yield management is not a new concept for the hospitality industry – it is a system or method of analyzing a business, with many elements that may be applied differently in different businesses.

Yield management (or revenue management) first appeared in the aviation industry, when in the 1970s the deregulated industry began to maximize efficiency, ensuring all seats were occupied before take-off, and offering varied price structures to the consumer. For the first time it was acknowledged that having passengers paying at least something towards operating costs was better than flying with empty seats.

Objective of yield management: It is easier to define the objectives of yield management rather than explain what it actually is – the outcomes are easier to understand than the process.

Maximize Profit. Yield management is about marketing mix, cost and price relationships and the distribution of product. It is a suite of components that, when working in harmony, will present the best opportunity to maximize the returns.

Setting target market. Yield management takes a holistic view of the food, beverage & accommodation business, relating costs to prices, establishing what variable costs there might be, defining the different ratios of the sales mix and setting targets for marketing.

Reduce food wastage. Food, beverage, hotel room & other services are perishable inventory (Yield management generate revenue by offering different kind of dishes with same ingredients (like egg can be offered in omelets, egg curry, egg biryani, etc.) because something is better than nothing.

Helps in covering cost. Usually fixed costs are high & variable costs are low. Yield management helps in covering both the cost.

Others benefits. These descriptions are particularly pertinent to the small accommodation operation, where there are constant battles with seasonal peaks and troughs, long lead times for pricing with wholesalers, location issues, marketing groups, regional activities and local pricing competition.

2.7.14 STANDARD PORTION SIZES

Standard portion is the quantity of a particular food item that will be served to the customer; the quantity may be measured in terms of grams (600 gm roasted chicken), liters (2 liters of milk),numbers (6 pieces of fish pakoras) or 2 slices of breads. The portion sizes are determined by the management in conjunction with the heads of kitchen and restaurant. The standard portion size of a dish may be determined by:

1. By buying pre-portioned food items like 1 packet of bread, a sachet of honey, jam etc.

2. By buying food items in bulk and then portioning them before service. For example pre-plating of salads for ala carte.
3. By portioning food items as they are being served to the customers, ex. food in hot Bain Marie in cafeteria, being plated and served.

Few hypothetical assumptions of portion sizes adopted in Indian kitchen
A wise manager/ Chef should know the followings while indenting for any function:

- 1 kg mutton cut serves
- 1 kg mutton mince serves
- 1 kg chicken cut serves
- 1 kg chicken mince serves
- 1 kg paneer serves

5 portions (ala carte)

7 portions (buffet)

- 1 kg well dressed chicken serves approximately 400 gms of boneless flesh.
- Average weight of rice serving for ala carte is approx. 110 gm.
- Average weight of rice serving for buffet is approx. 90gm.
- 1 kg of dal makhani serves approx. 20 portions (ala carte)
- Average weight of roti peda is 50 gm.
- Average weight of naan/parantha peda is 110 gm.
- 1 kg of boneless chicken flesh serves approx. 40 pieces.

Advantages of Standard Portion sizes
- Each and every plate has the equal size of meal
- It helps in calculating the actual food cost of each dish and thus form the basis for budgeting.
- Helps in menu engineering.
- Helps in reducing wastage, pilferage and over or under stocking of food.
- Acts as a double check to the purchase department.
- It helps in inventory management.

2.7.15 STANDARD RECIPE

Is defined as a written schedule of how to process menu items specifying the quantity and the method to be followed for preparation. It also specifies the quality and quantity of the ingredients to be added. (Fig.5D)

Importance of Standard recipe:

1. It helps in menu planning and standardizing.
2. It helps in calculating the nutritional value.
3. It forecasts the number of dishes, each which could be served.
4. Assists to know the accurate food cost of the dish or the item.
5. It helps in purchasing the raw materials.
6. It helps to train new employees.
7. It helps to determine the quality and quantity of the dish.
8. It ensures the consistency of good finished product.
9. It reduces the possibility of error.
10. Planning and production are developed on pre-determined cost, quality needed, portion sizes, number served and the employee capability.
11. It is easily adaptable to a range of computer applications, which may include inventory control and sales forecasting

Recipe Name:________________ **HOTEL XYZ** Recipe Code:_________

ADDRESS

Quantity:_________ portions **Standard Recipe Card** Portion size:___________

Pre-preparation time:______________ No. of calories:___________

Preparation time:________________ Colour: _________________

SL. No	**Ingredient Name**	**Quantity**		**Rate**		**Amount**		**Remarks**
		Unit	Amount	₹	P	₹	P	
				Total cost				

Preparation Method:

1.
2.
3.
4.
5.
6.

Variables used:

Sign Kitchen Head **Sign General manager**

Fig A Standard Recipe Format

CHECK YOUR PROGRESS- IV

Q.1 Write a note on types of production area.

Q. 2 Write a note on types of taste.

Q. 3 Write a note on Standard Recipe.

2.8 BEVERAGE PROVISION

A Beverage is any potable (consumable by humans) liquid which refreshes, stimulates or nourishes the human body. Most beverages fulfill two or all of the above three objectives. A beverage may be plain or flavored, hot or cold, flat or sparkling, alcoholic or non-alcoholic.

2.8.1 Objectives of a Beverage

1. **To Refresh: -** This is the primary reason why all living beings need water, in some form or the other. Water forms 70% of the human body and is the medium of all body functions. The nervous system needs water to convey electro-chemical signals between the brain and various parts of the body; lungs need water to absorb oxygen from the air; blood needs water to transport oxygen and nutrients to all parts of the body. However, when one does physically strenuous work, one perspires, thereby losing water and reducing the level of body's fluids below the minimum required for the body to function efficiently. The body sends signals to the brain which we interpret as thirst, or the feeling of need to drink some beverage. Thus, the primary objective of beverages is to replenish the level of water in the body, that is, to refresh the body.

2. **To Stimulate: -** "To stimulate" means to encourage the increment or the growth or the acceleration of a process. Most of us feel the need for a stimulating cup of tea or coffee when we wake up in the morning. When one goes to sleep at night, all the body functions like heart-beat, breathing, digestion, blood circulation, etc. Our body functions slow down also when we are tired, but to a lesser degree compared to sleeping. To bring them back to their normal rate (that is, to stimulate), we require energy. Solid foods can also provide energy, but our digestive system processes liquids faster than solids. Therefore, we prefer tea, coffee, hot chocolate, etc. when we wake up from sleep. Apart from energy in the form of sugar, stimulating drinks like tea, coffee, cola drinks, etc. also have caffeine, which makes the adrenal gland in our body secrete the hormone Adrenaline into our blood. Adrenaline makes our heart beat faster, increasing blood circulation, and consequently, speeding up all the other body functions. As a result, one feels more alert and energized, more "stimulated".

3. **To Nourish: -** When one sweats due to exertion, one's body doesn't lose only water. It also loses vital nutrients like mineral salts, vitamins, proteins, etc. that are essential to keep the body in good working condition. Beverages like fresh fruit juices, mineral water and fruit drinks (lemonade, ginger ale) contain various nutrients, and consuming these beverages nourishes the body by augmenting the essential nutrients to their required levels.

2.8.2 Classification of Beverages

Beverages are classified as either Alcoholic Beverages or Non-alcoholic Beverages.

Alcoholic Beverages:

1. Wines
2. Spirits
3. Liqueurs
4. Beers
5. Cocktails
6. Aperitifs

Any beverage containing at least 0.5% of alcohol is classified as an Alcoholic Beverage. Alcohol is a family of Hydroxide of Organic Radicals. All the alcohols except Ethyl Alcohol (scientific name – Ethanol, chemical formula – C_2H_5OH) are highly toxic (poisonous) for humans.

Global excise laws require that any beverage containing between 0.5% and 76% alcohol should be considered as a commercial alcoholic drink. Any beverage containing more than 76% alcohol comes under the category of medicinal drinks.

Non-alcoholic:

1. Hot-Tea, coffee, cocoa, etc.
2. Cold-Dispense beverages
3. Aerated water
4. Mineral water and spicy water
5. Squashes
6. Juices
7. Syrups

Just as the name suggests, Non-Alcoholic Beverages contain no or less than 0.5% alcohol. They are potable drinks which have one, two or all of the 3 qualities of being refreshing, stimulating and nourishing. Non-Alcoholic Beverages may be either HOT or COLD.

Cold non-alcoholic beverages can be further Germany), Vichy Celestine (France) and Badoit (France) are examples of beverages which naturally contain carbon dioxide gas.Coca Cola, Fanta, 7up, Limca, Tonic Water, Ginger Ale, etc. are beverages which are artificially charged with carbon dioxide gas.

Hot non-alcoholic beverages, the prime examples of which are Tea, Coffee and Hot Chocolate, are consumed primarily as stimulating beverages around the world. Though most of the hot non-alcoholic beverages have substantial levels of nutrients, their consumption for nutritional or refreshment purposes is very limited. Categorized as either Aerated or Still (Non-Aerated).

Still Drinks are plain liquids which may be flavoured or unflavoured. Mineral water, fruit & vegetable juices, squashes, cordials, crushes, slushes, shakes, smoothes, syrups, nectars, ethnic drinks like lassi, nimbu-paani, aam-panna, coconut water, jaljeera, etc., all come under the of Still or Non-Aerated Beverages.

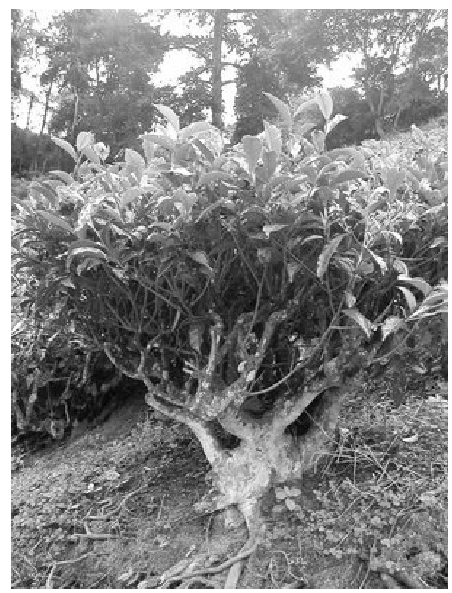
Aerated Beverages, also called Sparkling Beverages, are the drinks which contain Carbon Dioxide, either occurring naturally or added artificially. Spring waters or Mineral waters like Appolianaris.

2.8.3 Non Alcoholic Beverages

Stimulating Beverages: some of the stimulating beverages such as tea, coffe etc. are discussed as under:

2.8.3.1 Tea

Definition of Tea: Tea is a non-alcoholic beverage obtained by processing the leaves of Camellia Sinensis or Camellia Assamica, which are tropical plants of the Camellia family. The processed tea leaves are infused with steaming hot water to release the rich aroma and flavour of tea and then combined with cream, sugar, lime juice or a huge array of other herbs, flavours and mixers. Tea is the second most popular non-alcoholic beverage in the world after coffee. It is the most commonly consumed drink in India, China, Japan, Korea, Sri Lanka, West Asia, Great Britain and France.



TYPES OF TEA

Black Tea: This is the most commonly available and the most widely consumed variety of processed tea in the world. Black tea is produced when the production method described above is followed without variations. As the name suggests, it is black in colour and is characterized by strong aroma and flavour. A variation of the Black Tea is the CTC (Cut, Tear and Curl) Leaf Tea. This variation is produced when, during the Rolling stage, the rolling cylinder in the crushing machine has grooves and spikes on its rolling surface. When the leaves pass under the cylinder, they not only get rolled but also get cut, torn and curled. The CTC Leaf Tea leaves have a pellet-like appearance and are browner in colour compared to Black Tea. Though having lesser flavour than Black Tea, CTC Leaf Tea produces stronger liquor.

Oolong Tea: - The Oolong Tea is very popular in its country of origin, China. It is produced by reducing the time of the Withering and Fermentation processes by half. The liquor of the Oolong Tea is golden-amber in colour and, even though it isn't very strong, it gives off a highly refreshing aroma and contains a fine, delicate flavour.

Green Tea: - Green Tea is produced by steaming the leaves immediately after plucking. The stages of Rolling, Withering and Fermentation are completely eliminated. After steaming, the leaves are dried, rolled and packaged for sale. Green Tea leaves, when infused with hot water, turn it a light golden in colour and give off a delicate, enticing aroma. Green Tea is gaining popularity all over the world due to its high content of vitamins and minerals as well as its anti-oxidant properties. In India, Green Tea is grown in the Kangra valley and in Dehradun and is used to make the popular Kashmiri Kahwa.

Black Tea is graded into 4 major categories according to leaf or particle size:

- Leaf Tea
- Broken or Small Leaf Tea
- Fannings
- Dust

Other Popular Teas:

1. **Herbal Tea: -** Herbal Teas do not contain any tea leaves. They are made from the flowers, berries, peels, seeds and roots of many different plants like Camellia, Camomile, Rosemary, Mint, Lemon Grass, Ginseng, Yarrow and Rose. Herbal teas have gained great popularity among health-conscious people due to their zero caffeine content.

2. **Instant Tea: -** An infusion of regular tea is freeze-dried and placed in air-tight containers. Instant tea is used in Automatic Vending Machines.

3. **Yerba De Mate: -** It comes from Paraguay and Brazil and contains no tea. It is produced from the leaves and small stems of a species of plant native to the above-mentioned countries. The leaves and small stems of this plant are processed exactly like tea.

4. **Scented Tea: -** They are simply teas which have been scented with extracts of flowers, herbs and peels of plants like Jasmine, Rose, Orange Zest, Lemon, Cinnamon, Earl Grey, etc.

Golden Rules for Making Tea:

1. Use a good quality tea.

2. Use fresh water, which is freshly boiled. The water should be lime free. Tap water makes tea cloudy.
3. Heat the tea pot, i.e., rinse out the teapot with boiling water before putting in the tea. One teaspoon of tea per person + one for the pot (depending upon the quality of the tea).
4. Pour the water onto the tea just as it reaches boiling point, taking the pot to the kettle, as the water must be as near boiling point as possible to enable the leaves to infuse properly. Water should be 95^{0}C (just below boiling point), before it is poured over the tea leaves.
5. Infusion becomes bitter if boiled longer.
6. Brew the tea, never stew it. Allow the tea to brew only for 4-5 minutes, and stir well before pouring.
7. Just before serving, stir the tea in the teapot with a spoon. Use a strainer.

2.8.3.2 Coffee

Definition of Coffee : Coffee is a hot non-alcoholic beverage which contains a strong stimulant called CAFFEINE. It is made by infusing the crushed processed beans of the "Coffea" plant with hot water. Many different mixers, herbs, sweeteners, juices, etc. are added to the coffee liquor according to the consumers' tastes to make the bitter coffee more palatable. Coffee is the most popular beverage, particularly as an after-dinner drink, in the world.

THE "COFFEA" FAMILY

Coffea Arabica: Arabica is the best quality, and consequently the most expensive, variety of coffee. Its beans are uniform in shape, regular in size and impart excellent aroma and flavour. The Arabica plant, however, is quite vulnerable to climate change, pests and diseases. It is grown predominantly in West Asia, India, Brazil, Colombia, Costa Rica, Kenya and Jamaica.

Coffea Canefora (Robusta Coffee): As the name suggests, this is a very robust variety, highly resistant to pests, diseases and climatic variations. It was grown mostly in the equatorial parts of Africa till a decade ago, but has

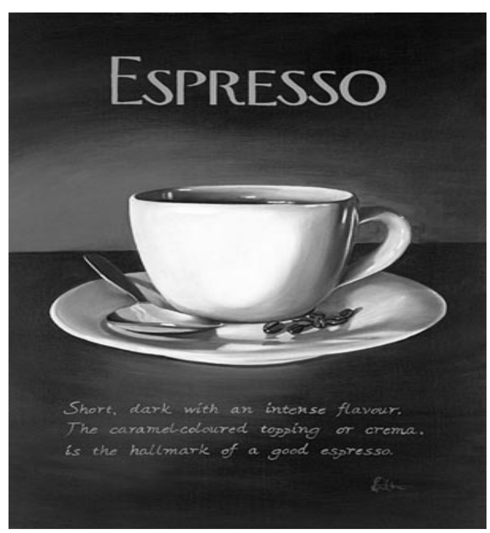
now taken over most parts of the coffee cultivating world from the Arabica plant. Though slightly behind Arabica in terms of aroma and flavour, Robusta gives much higher yield and also produces stronger liquor.

Coffea Liberica: Liberica coffee beans are large in size but lack quality, aroma and flavour. Liberica is grown in Malaysia and Guyana, but not on a large enough scale, and its consumption is also limited to these regions only. Arabica and Canefora (Robusta) are the only commercially important varieties of coffee in the world market. Liberica, being low in quality, does not have any commercially viable demand.

Method/type of Coffee	**Grinding Grade**
Filter / Dip	Fine to Medium
Jug	Coarse
Turkish	Medium
Cafetiere	Medium
Vacuum Infusion	Medium Fine to Fine
Espresso	Very Fine
Percolator	Medium

Rules to Observe while making Coffee:

1. Use freshly roasted and ground coffee.
2. Buy the correct grind for the right type of machine
3. Clean the equipment
4. Use a set measure.
5. Add boiling water to the coffee.
6. Infusion time is according to the type of coffee being used and the method of making
7. Control the temperature. Do not boil it.
8. Strain; serve.
9. Add/milk/cream separately.
10. Serving temperature – Coffee – 82^0C, Milk – 68^0C



Characteristics of Good Coffee:

1. Good flavour
2. Good aroma
3. Good aroma of milk/cream
4. Goody body

Cocoa and Chocolate: The Cocoa plant is a small tropical tree which was originally grown in South America. Nowadays, the Accra region in Ghana (West Africa) is the single largest producer and exporter of Cocoa, accounting for approximately 70% of the global output. Brazil, with 24%, is the second largest producer. The cocoa plant needs fertile soil, low altitude, hot and humid climate and high rainfall to grow. The fruit of the cocoa plant, called the “Cocoa Pod”, is about 4-12 inches in length and about 4 inches in diameter. It has a yellowish leathery rind covering the pulp, which contains 25-75 seeds per pod. The cocoa and cocoa butter are contained within the seeds.

Cocoa Butter : Cocoa butter is used to make imitation chocolates which are of inferior quality compared to genuine chocolate, and consequently, cheaper. The most common use of cocoa butter, however, is in the manufacture of cosmetics.

2.8.3.3 Nourishing Beverages

1. **Bourn vita:** Mixture of malt, sugar, glucose, cocoa powder, dried milk, dried egg, salt and flavouring. Blended together; cooked under a vacuum until brittle. Carefully broken up.

2. **Horlicks:** Malted milk made from wheat flour, malted barley and milk.

3. **Oval tine:** Made from barley, malt milk, cocoa powder, soya flour, eggs and vitamins.

4. **Milo:** Made from condensed milk and malt extract with cocoa power, milk products and added vitamins.

Other Patent Beverages:

1. Boost
2. Complan
3. Mistura – real almond, chocolate, rich protein mixture.

2.8.3.4 Hot Milk

It is a soothing beverage. It is served in a teacup with a sugar basin or sometimes in a highball glass.

2.8.3.5 Refreshing Beverages

Iced Tea: Make strong tea. Chill well. The iced tea may be strained and stored chilled until required. This may be then served in a glass, on a doily, with a teaspoon on a side plate.

Garnish: A slice of lemon and sprig of mint.

Alternate method: Place crushed ice in a tall glass. Bring cool black tea in a teapot. From the right, pour it over the ice.

Cold Coffee: Strong coffee (black) should be made in the normal way. Strained and chilled well until required. It is served with an equal quantity of chilled milk for a smooth beverage or with cream in a tall glass with ice cubes added and with straws. The glass should stand on a doily on a side-plate with a teaspoon and wherever necessary, some cream should be served separately. It could be topped with ice cream.

Milk Drinks:

1. **Plain cold milk –** It is refreshing and nourishing. Generally served in a tall glass with an underliner and doily in between and a sundae spoon. Sugar syrup is given separately. A straw is also provided.

2. **Milk shakes –** A mixture of fresh milk, ice cream and flavouring syrup, rapidly whisked. May be topped with ice cream.

3. **Ice cream sodas –** A combination of fruit syrup and fresh cream in a long glass filled with soda water and topped with ice cream.

4. **Egg nog –** These are beaten eggs with fruit syrup and sugar added, mixed with hot/cold, and garnished with nutmeg power.

5. **Iced chocolate –** Make a hot chocolate with melted chocolate, castor sugar and milk. Cook it, whisking it all the time. Allow it to cool completely. Put it in a blender with crushed ice.

6. **Flavoured milk –** In tetra packs.

2.8.3.6 Mocktails

A non alcoholic beverage containing all properties of a cocktail except alcohol. Some famous mocktails are given below :

1. **Virgin Mary –** Tomato juice with salt, pepper, worcester sauce. May be garnished with a wedge of lemon. Served in a salt rimmed old-fashioned glass.

2. **Non-alcoholic Pina Colada –** Pineapple juice and coconut cream, shaken well and strained. Served in a Collins glass. Garnished with pineapple. Served with a straw.

3. **Shirley Temple/Roy Rogers –** A mixture of ginger and grenadine. Served on the rocks with a full fruit garnish and straws.

4. **Tropicana –** Pineapple juice + orange juice.

5. **Pussyfoot –** Orange juice, lemon juice, lime cordial, grenadine, egg yolk and soda, shaken well. Served on ice in a Collins glass and topped with soda.

2.8.3.7 Squashes and Cordials

These are all concentrated fruit extracts, meant to be broken down with fresh or aerated water into a long drink and may be served hot or cold. A fruit squash is made from fruit juice, sugar and preservative. Fruit cordial is a fruit squash from which all suspended matter is completely eliminated and is perfectly clear. It is filtered and clarified using fining agents. It is preserved by adding Potassium Meta-bi-sulphide and Sodium Benzoate or pasteurized by freezing.

Fruit Syrups : These are concentrated fruit juices preserved with sugar or manufactured from compound colourings and flavours, eg. orange, lime, cherry, etc. Grenadine syrup is made from pomegranate.

Use : Base for cocktails, fruit ups or mixed with soda to give a long drink.

FRUIT JUICES

1. **Fresh Juices:** The unfermented juice of fresh fruits e.g. Apples, grapes, pineapples.

2. **Preserved :** Used in bars
   - Canned
   - Bottled
   - Tetra Packs

It is served in 8 oz glasses on a doily-covered underliner. Since they already have high sugar content, there is not need to give sugar syrup separately. Provide a straw with it.

2.8.3.9 Waters

Soft Drinks: Drinks are acidified, sweetened, coloured artificially, carbonated and often chemically preserved. The formulation and flavouring of many well-known brands are a guarded secret. The water used should be well-purified, and free from micro-organisms, dissolved metals and organic compounds.

Synthetic flavours are generally used because:

- Natural flavours added to the drinks do not give standard products.
- Natural flavour extracts undergo changes in the presence of light, acid and storage.
- Natural flavours do not transport pigments of sufficient depth.
- Natural flavours are unstable in acidic conditions. Acids used are Citric, Malic, Tartaric and Phosphoric. Dissolved carbon dioxide also produces acidity.

Sodium Benzoate is a common preservative used in soft drinks.

Tonic – It is an aerated drink, sweetened and flavoured with natural fruit and plat extracts including quinine. It is drunk straight with ice and a slice of lemon or added in a cocktail. It is generally used with gin.

Gingerale – Consists of aerated water with colouring and ginger essence.

Lemonade – Consists of lemon juice, sugar and aerated water.

Bottled Water: It is of two types:

1. **Mineral –** This has a mineral content, which is strictly controlled.
2. **Spring Water –** This has fewer regulations apart from those concerning hygiene.

Waters can be classified as:

1. Still
2. Naturally sparkling
3. Carbonated during bottling.

The capacities of the bottles vary from 1.5 litre to 220 ml. Glass and plastic bottles are available.

Natural Spring Waters: This is obtained from natural spring water in the ground. The water itself is impregnated with the natural minerals found in the soil. It is sometimes charged with an aerating gas. The uniqueness of this mineral water is that they have medicinal value. Where natural spring waters are found, it is usually termed as ‘Spa’. Here the water may be drunk or bathed in, according to the cures they are supposed to effect. Many of the best-known mineral waters are bottled at the springs.

Mineral Waters: According to their chemical properties, they are classified as :

1. **Alkaline Waters –** Help treatment of gout and rheumatism.
2. **Aperient Waters –** Have saline constituents like sulphate of magnesia or sulphates of soda.
3. **Chalybeate Waters –** Mineral waters are of two kinds : carbonated or sulphated. They act as a stimulant and as a tonic.
4. **Lithiated Water –** Rich in lithia salts.
5. **Sulphurous waters –** These are impregnated with hydrogen.
6. **Table Waters –** These are less mineralised than other natural spring waters and are mainly alkaline. They may be taken between meals or at meal time, either alone or mixed with light wine or spirits.

Brand Names of Mineral Waters :

French	:	Badoit, Contrex, Evia, Perrier, Vichy Saint
England	:	Ashbourne, Abey Well, Ashe Park, Malvern, Aqua Pura
Ireland	:	Bally Gowan, Glenpatrick
Italy	:	San Pellegrino, Ferrarelle, Crodo Lisiel
Germany	:	Apollinaris, Uberkinger, Petrusquelle
Belgium	:	Spa
Switzerland	:	Aqui
Sweden	:	Ramlosa
India	:	Himalaya, Pondicherry

2.8.4 Alcoholic Beverages

Alcohol: Alcohol is a liquid obtained by the fermentation any sugar containing liquid. Ethyl alcohol is the principal alcohol found in all alcoholic beverages. An alcoholic beverage is defined as any potable liquid having a minimum of 0.5% of ethyl alcohol by volume.

Methods of Obtaining Alcoholic Beverages:

1) **Fermentation:** Sugar of fruit/grain is converted to alcohol by the action of bacteria/yeast. The concentration can be controlled by the length of fermentation.

2) **Distillation:** The fermented fruit or grain mash is heated. The alcohol evaporates at a lower half than that of water and it is condensed, collected and concentrated as per requirement.

Different Alcoholic Beverages:

1) **Wine:** It is an alcoholic beverage obtained by fermentation of freshly gathered grapes.

2) **Spirit:** This is potable alcoholic beverages obtained by distillation of a liquid containing alcohol. Some of the spirits are :

   a) **Whiskey**: It is derived from the Gaelic term, 'using beatha', meaning, water of life, and is a distillation of fermented mash of grain (maize, barley, corn, rice, etc.) or a combo. It is matured or aged in wooden casks.

   b) **Brandy**: 'Brandewijn' in Dutch means 'burnt wine' and it is obtained from the mash of grapes. Brandies can be obtained from other fruits like peach, apple, etc.

   c) **Gin:** It is derived from a French word, 'Geneivre', which means juniper berries and it is the prime flavouring agent in gin. The base is a neutral spirit made from grain with other flavourings like coriander, orange and lemon peels added to it.

   d) **Rum:** It is obtained from 'Saccharum', a main constituent of sugarcane and was originally made in West Indian plantations.

   e) **Vodka:** The term 'Voda' means water. This is a fermented mash of grain/vegetables (potatoes). Re-distillation removes all odour, taste and colours. It is diluted to required strength.

   f) **Tequila:** It is obtained from a large pineapple-type plant of the lily family – mistaken usually for a type of cactus – found in abundance in South West Mexico.

3) **Beer:** This is an alcoholic beverage made from the fermentation of several grains flavoured with hops and the by-product of carbon dioxide is retained in the bottling. The method of making beer is known as brewing.

4) **Sake:** It is an oriental brewed beverage made from rice.

Type of Alcoholic Beverages: Alcoholic beverages are named differently due to the use of different base raw materials, the methods of production and flavourings achieved either by natural means of additives. The following are different types of alcoholic beverages.

1. Fermented: In this type, raw materials used are mostly fruits containing high amounts of naturally occurring sugar, which can easily be converted by the action of yeast to alcohol and carbon dioxide.

Base Material	**Fermented Products**
Grapes (wine)	Table wines (red, white and rose), sparkling (with carbonation), fortified (with added alcohol), aromatized (with added alcohol and flavouring), vins doux naturals (naturally occurring sweet wines)
Applies	Cider
Pears	Perry
Honey	Mead
Agave or maguey	Pulque (A type of prickly plant of the lily family)

2. Brewed: It is a process similar to fermentation. But since the base materials is a carbohydrate, it has to be broken down to simpler sugars and yeast has to be added to it before the fermentation an occur.

Base	**Brewed Products**
Grain	Lager, ale, stout and porter
Rice	Sake (An oriental brewed product from Japan and China)

3. Distilled: This process of separating water from alcohol is achieved by heating the mixture obtained by fermenting of brewing and then condensing the alcohol vapours.

From	**Distilled Products**
Grapes (wine)	Cognac, armagnac and other brandies
Grain (beer)	Whisky, vodka and kornbranntwein (brandy from corn)
Sugarcane (Molasses) Rum –	light, dark, full-bodied
Dated, palm sap	Arrack
Agave (pulque)	Tequila

4. Fruit Brandies: They are also distilled beverages from fruit-based products. Some of them are:

From	**Distilled Products**
Applies	Calvados
Plums	Slivovitx, mirabelle, quetsch
Cherries	Kirsch, cherry brandy
Pears	Eau-de-vie de poire
Strawberries	Eau-de-vie de fraise

5. Compounded Flavoured Spirits: These are distilled beverages with the addition of flavouring agents (flowers, roots, barks, leaves, seeds) added either during the distillation process or later.

From	**Distilled Products**
Grain, molasses	Gin
Grain, potatoes	Aquavit

Grapes	Pastis-Pernod, Ricard, Ouzo
Aromatic fruits	Bitter
Fruit, grapes, grain	Liqueurs

CHECK YOUR PROGRESS- V

Q.1 Write a note on types of Beverages.

Q. 2 Write a note on Non-alcoholic beverages.

Q. 3 Write a note on Alcoholic Beverages.

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2.9 EVENTS CONFERENCING & BANQUETING

An event is an experience, carefully crafted to deliver an impact on the person in attendance. The activities, environment, and layers of multisensory effects are integrated into an event design that is staged and designed with precision and polish. Events create opportunities for people to connect with an area, spend time together, celebrate and experience the diversity of cultures and foster creativity and innovation. They allow a community to come alive and provide an opportunity for a destination to showcase its tourism experience and increase economic activity. Events contribute significantly to community building, lifestyle and leisure enhancement, cultural development, tourism promotion and increased visitation, volunteer participation, fundraising and economic development. Most importantly, events create a sense of fun and vibrancy, resulting in a strong sense of community connectivity, pride and a sense of place.

There is no single universally accepted definition of event. Many authors have discussed the definition of events and the various terms used to describe them. However, there is only limited agreement on standardised terms across the various researches . The Accepted Practices Exchange Industry Glossary of TERMS (APEX, 2005) defines an event as, "An organized occasion such as a meeting, convention, exhibition, special event, gala dinner, etc. An event is often composed of several different yet related functions."

Goldblatt (2005) focuses on special events as "a unique moment in time, celebrated with ceremony and ritual to satisfy specific needs." Getz (2008) notes that events are spatial - temporal phenomena and that each is unique because of interactions among the setting, people, and management systems, including design elements and the program. He highlights the fact that the biggest appeal of events is that they are never the same, and that the guest has "to be there" in order to enjoy the experience fully. He suggests two definitions, from the perspective of the event organizers, as well as the guests:

1. A special event is a one-time or infrequently occurring event outside normal programmes or activities of the sponsoring or organizing body.
2. To the customer or guest, a special event is an opportunity for leisure, social or cultural experience outside the normal range of choices or beyond everyday experience.

Bowdin (2006) notes that the term "event" has been used "to describe specific rituals, presentations, performances or celebrations that are consciously planned and created to mark special occasions and/or to achieve particular social, cultural or corporate goals and objectives." Jago and Shaw (1998) suggest six features of special events. According to them, special events should: . Attract tourists or tourism development ,Be of limited duration , Be one-off or infrequent occurrence , Raise the awareness, image, or profile of a region, Offer a social experience , Be out of the ordinary. Summarising the definition of a special event, they note it as: “A one-time or infrequently occurring event of limited duration that provides the consumer with a leisure and social opportunity beyond everyday experience. Such events, which attract or have the potential to attract tourists, are often held to raise the profile, image or awareness of a region.”

2.9.1 Classification of Events

There are different criteria for classification of events. The basic one classifies events as planned and unplanned. Planned events are the subject of study of event management and they require setup, management, executives and certain length of time. Unplanned events are accidents, natural disasters and other similar, and they will not be taken into consideration in this unit.

Events offer a unique form of tourist attraction, ranging in scale from small community festivals, through to international trade fairs, and on to the largest of global sporting events, such as the Olympic Games and the FIFA Football World Cup. One of the key differences between events and traditional attractions is the period of time over which they impact the host community or region. Events are shortterm by definition, often lasting only one or two days, although some larger events can last significantly longer (e.g. weeks for example Kumbh mela in India) while fixed attractions tend to draw visitors seasonally, or over an extended period

When considering the scale and impact of events, they fall into four broad categories Mega Events, Hall mark events, Major events and local events. The key factors typically recognised as determining the perceived scale and impact of events are the level of participation, audience/spectators, and media coverage; and the degree to which an event generates significant international demand for each.

1. **MEGA EVENTS:** Events with international appeal and true global reach typically fall into the categories of major or mega-events. Such events have the potential to act as catalysts for local development, and to deliver a range of economic, socio-cultural, environmental and other benefits associated with image, branding, and expansion of the visitor economy, just to name a few.

   Mega-events, as the largest and highest profile of all events, invariably, require the most significant and sophisticated infrastructure development, are typically the most expensive to host, and given the competitive bidding process for such events, typically take the longest time from inception to delivery. They also tend to have the longest legacy period. However, there are also very limited opportunities for cities and countries to host these very largest of events. Problems of infrastructure, facilities, transport and cross cultural issues are some of the limitations in the organization of these events. Despite this, many countries continue to view the investment of resources necessary to bid for and potentially host these mega-events, as one that can provide commensurate returns.

For the largest of events in particular, the specific aims and desired outcomes from a national perspective, may vary between potential host candidates depending on their level of economic development, existing infrastructure, identified security needs, plans for urban regeneration, current and desired international image, maturity as a tourism destination, and sustainability credentials, just to name a few. Therefore it is clear that events provide different potential legacies, depending on the requirements of the respective host city or country.

Getz (2005) defines them: "Mega-events, by way of their size or significance, are those that yield extraordinarily high levels of tourism, media coverage, prestige, or economic impact for the host community, venue or organization." Another author, Hall, explains that mega events owe their name to their size in terms of attendance, target market, level of public financial involvement, political effects, extent of television coverage, construction of facilities, and impact on economic and social fabric of the host community (Allen et al., 2011).

2. **HALLMARK EVENT:** These are the events with the distinctive quality of the program. Hallmark events are so identified with the spirit and soul of a host community that they become synonymous with the name of the place, and gain widespread recognition and awareness. Hallmark events are of special importance and attractiveness both for particiants and visitors, they attract great attention of the public, contribute to the image of destination and maintain and revitalize the tradition. Classic examples of hallmark events are Carnival in Goa, Dussehra of Kullu and Khuajoroho Dance festival. These events are identified with the very essence of these places and their citizens, and bring huge tourist revenue as well as a strong sense of local pride and international recognition.

3. **MAJOR EVENTS:** Major event is a large-scale event, with strong public interest and media coverage. Major events attract large numbers of visitors, and help the organizers achieve good economic results. In practice of management of events, these events are often sports-oriented, with an international reputation, and defined structure of competition for example: Formula One Grand Prix or trade fair exhibitions held at Pragati Maiden New Delhi.

4. **LOCAL EVENTS:** Local event is an event that is targeted mainly for local audiences and staged primarily for their social, fun and entertainment value. These events often produce a range of benefits, including engendering pride in the community, strengthening a feeling of belonging and creating a sense of place. They can also help with exposing people to new ideas and experiences, encouraging participation in sports and arts activities, and encouraging

tolerance and diversity. Various local events are celebrated in India such as Lohrai, Baisakhi and exhibitions to display new products .

Another common way of classifying events is by their form or content:

- Cultural celebrations
- Arts and Entertainment
- Business and Trade
- Sport competitions
- Recreational
- Educational and Scientific
- Political and state

One more criterion of classifying the events that is often mentioned in literature is according to the level they are attached to particular destination. Therefore, there are events that always take place in the same community, those that always take place in a different community, and those that take place simultaneously in several communities, or they cover the entire region. As Getz (2008) explains, mega events, which by definition always take place in different community, are typically global in their orientation and require a competitive bid to "win" them as a one-time event for a particular place. On the other hand, hallmark events cannot exist independently of their host community, as well as regional and local events which are rooted in one place.

Getz provides a typology of the main categories of planned events based primarily on their form which have obvious differences in their purpose and program. Some are for public celebration (this category includes so-called "community festivals" which typically contain a large variety in their programming and aim to foster civic pride and cohesion), while others are planned for purposes of competition, fun, entertainment, business or socializing. Often they require special-purpose facilities, and the managers of those facilities (like convention centers and sport arenas) target specific types of events:

- CULTURAL CELEBRATIONS
    - Festivals
    - Carnivals
    - Commemorations
    - Religious events
- POLITICAL AND STATE
    - Summits
    - Royal occasions
    - Political events
    - VIP visits
- ARTS AND ENTERTAINMENT
    - Concerts
    - Award ceremonies
- BUSINESS AND TRADE

- Meetings, conventions
  - Consumer and trade shows
  - Fairs, markets
- EDUCATIONAL AND SCIENTIFIC
  - Conferences
  - Seminars
  - Clinics
- SPORT COMPETITION
  - Amateur/professional
  - Specator/particpant
- RECREATIONAL
  - Sport or games for fun
- PRIVATE EVENTS
  - Weddings
  - Parties
  - Socials
  - Business events and tourism

Finally, all events can be categorized as profitable and non-profit events. Non-profit events are characterized by special programmes mainly devised to enhance the image of the organizers, participants or some organizations. Another type of non-profit events is charity events, devised to collect funds, not for the organizers or participants, but for charity purposes. Nevertheless, the majority of events are profitable. Their economic goal is the profit, and social objectives are related to implementation of various types of programmes - sports, cultural, artistic, business, educational, political or scientific. Events that drive international tourism in large numbers can be grouped into four main categories:

- ✓ **Niche Events** – often with close links to the host destination, whether the connection is literary, culinary, adventure sports, music festivals etc. (e.g. Agra music festival). This category may also include events at the smaller end of the spectrum, such as Hemis Festival of Ladakh. Such events are relatively inexpensive to organise and are likely to attract a higher proportion of high spending international attendees.

- ✓ **Participatory Sports Events** – for example, the world masters games, world police and fire games, ironman events, and junior sports events. These are ‘destination’ events which attract thousands of competitors from outside the host country, most of whom bring multiple people with them (spouses, friends, family) and often extend their event related stay into a holiday.

- ✓ **Signature Cultural Events** – events which gain an international reputation as ‘must see’ and include, for example, South by South West (SXSW) in Austin, Texas, Sonar festival in Barcelona, White Nights in Melbourne, or the Edinburgh Fringe Festival and Hogmanay, in Scotland

- ✓ **International Sports Events** – for example, single or multi-sport events such as the World Cup Rugby, the Tour de France, and World Championships for a variety of sports (athletics, swimming, gymnastics etc.). Such events can not only bring in large numbers of participants and spectators but also achieve large worldwide television coverage and can play a significant role in raising the profile of the destination and the brand of the country. The biggest events of this type would be the Summer Olympic Games and the Football World Cup; however, smaller international sports events can have a similar effect on a smaller scale, often with less financial risk

2.9.2 Benefits of Events

The potential benefits of hosting major events from the perspective of the visitor economy include:

1. **Structural expansion of the visitor economy**: Visitors coming to a city or region for an event will contribute to a more buoyant economy, with visitor expenditure having a multiplier effect on incomes throughout related supply chains. With the multiplier effect the host destination shall benefit in terms of employment, income and better standards of living.

2. **Alignment of tourism with other strategies:** The requirements of hosting a major event can be used to, promote an integrated whole-of government approach, and maximise synergies between relevant development and growthinfrastructures constructed for events are one of the most visible lasting legacies for a host city or region and can have real impacts for tourism growth.

3. **Marketing and promotion**: Pre-event branding associated with the successful hosting of a major event, can provide lasting recognition of destination branding in key tourism markets, encourage return visitation of attendees or participants, and a better understanding of the focus of the event such as sport, arts and culture, food and wine, etc.

4. **Environmental impacts:** The international focus often associated with major events can help to prioritise work on an often under-developed or neglected built environment and therefore the attractiveness and competitiveness of destinations. In addition, ensuring that events are managed in an environmentally friendly manner is also becoming a high priority in terms of branding

A positive legacy can encourage community and stakeholder support for an event, represent a tangible return on investment, or justification for public expenditure. However, to achieve a positive result requires strategic planning well in advance of the event, adoption of a long-term perspective and evaluation throughout the event lifecycle, from inception through to the post-event period. Any infrastructure development needs to be built with long-term use as the priority, and ideally with funding and resources earmarked for the post-games period

2.9.3 Event Management Strategy

Events Management Strategy Events are widely acknowledged as presenting opportunities as a strong economic and tourism generator as well as bringing a range of community and social benefits to their host destination.

The major drivers of this strategy are the cultural, social and environmental benefits of community events. A clear vision is needed to provide direction to activity in the future, hence the development of an Events Management Strategy for Irwin. In developing this Strategy our objectives are to:

- Gain a sound understanding of existing events and venues;
- Achieve clarity regarding the role and responsibilities of event management company to support and host events
- Develop a sustainable, outcome focused events programme which maximises the potential of our involvement in events;
- Incorporate the cultural, lifestyle and environmental factors unique to the destination into the events programme;
- Pursue campaign which support events and which contribute to overall destination marketing;

2.9.4 Banqueting

A *banquet* is a special meal supplied to a group of persons who belong to a particular association and who wish to meet and eat together because of their like interests, usually annually. This makes it a special occasion and the menu and service should therefore be of a higher standard than for the normal daily routine. A banquet can be held at lunch- or dinner-time and the pattern of operation may vary from one kind to another but it is a formal occasion and traditional protocol should be followed. Banqueting is the term used to describe the service of special functions in an establishment which is separated from the normal dining service/area found in the various restaurants within the Hotel/Resort, meaning a service of special functions for a specific group of people at specific times where food and beverages are pre-selected/determined.

The *banqueting room* has to conform to the safety regulations and be approved by the local fire officer to accommodate a maximum number of persons. The *banquet manager* draws up seating plans that allow free access to all the exits. The formal method of seating at a banquet is to have a top table that will accommodate the officials and honoured guests, and sprigs from it to seat the remaining number of people, leaving sufficient space between each sprig for waiters to move in to serve. This style of seating makes the maximum use of available space and can quickly be set up for the meal and moved if the room has to be cleared in readiness for a dance floor. The individual method of banquet-seating is less formal because groups of friends can be seated at tables of various sizes, or the organiser can allocate each seat as he thinks fit for his members.

2.9.4.1 Event service staff roles

In larger establishments there is generally a small number of permanent staff dealing solely with events. This often includes a sales manager, banqueting/events manager, assistant managers, banqueting/events head waiters, service staff, technical staff and porters together with an administration office. In smaller establishments, where there are fewer events, the manager, assistant manager and food and beverage service staff undertakes the administrative and organisational work as part of their regular duties.

Sales manager: The main role of the sales manager is to promote the event facilities of an establishment and, where necessary, to make the initial approaches and contacts. The sales manager must have an extensive knowledge of room specifications, size, light switches, electric points and output, IT capabilities, height and width of doorways, maximum floor loads and so on. This enables them to respond quickly to any queries at the initial meeting with a client. Most establishments offer various forms of banqueting and/or meetings and conference sales packages (see p.389) and these provide a range of information about the facilities available and the charges for them.

Banqueting/conference manager: The banqueting/conference manager is responsible for all administration, including meeting prospective clients and discussing the arrangements for the menu, table plans, costs, wines, band, and toastmaster. They must communicate to all the departments concerned the date of an event, numbers expected and any other details that might be required by a particular department, usually by the means of an 'event sheet' and a daily/weekly meeting.

Administration office staff: The administration staff work with the managers and are responsible for handling all incoming and outgoing mail, ensuring that information about an event is passed to the relevant internal departments and for record keeping. Administrative staff handle enquiries and may take provisional bookings for events, ensuring the details are entered on the events booking form (see p.389) which in turn becomes the details for the events sheet.

Banqueting/events head waiter: The banqueting/events head waiter is in charge of the events rooms plus the organization required to prepare the rooms for various events. They may also be responsible for booking staff on a casual basis to cover the various duties at an event.

Dispense bar staff: The dispense bar staff are responsible for the allocation of bar stock for the various events, setting up the bars, organisation of the bar staff, control of stock and cash during service and stocktaking after an event has taken place. They are also responsible for restocking the event bars.

Banqueting/events head wine waiter: The banqueting/events head wine waiter may work in conjunction with dispense bar staff and is often responsible for organising and employing (if on a casual basis) the banqueting/events wine waiters. They will allocate the wine waiters' stations, give them cash floats if there are cash wines and discuss the service with them.

Permanent service staff: The permanent service staff are usually experienced staff that can turn their hand to any job concerning events and banqueting. They generally do most of the mise-en-place before the event, for example laying the tables.

Casual staff: Casual staff are hired on a part-time basis to work at the events as needed. These can be from a bank of staff the establishment run themselves or an agency specialising in waiting staff.

Porters: There are generally a number of porters on the permanent events staff. They are essential members of staff as there is often a great deal of work involved in preparing room layouts before and after events.

2.9.4.2 Booking Procedure

Banquet booking and reservation is a very important part of the banquet operations. There are various ways to enquire about the banquet facility: by e-mail, on telephone or by person. Personal booking is very popular way of banquet booking, whereas enquiry on phone or by e-mail is mostly use to check facility and availability of dates. Be prompt and courteous while responding on telephone and check from the clients about name of the contact person, telephone number, e-mail address, date of function, start and end time of the function and guaranteed pax. While attending clients personally welcome them and follow the booking procedure as per the hotel guidelines. Banquet booking procedure is divided into three phrases:

Phase – 1 Check the date of the function and the number of guests to be catered and the cross check the capacity and the availability of the banquet on that particular day. At the initial meeting on contact with the client the details are taken and entered in a register called the 'Function Book' or 'Function Diary'. This gives the basic and temporary information about the function. This book is placed in the banquet administration office for easy access to all banquet personnel. Before confirming any banquet booking, the function diary is referred to avoid confusions. This book also eliminates the chances of double booking and overbooking. Each sheet of the book is allotted to a single calendar date. It contains all the details such as name of the client, contact number, type of function, time of the function and number of pax. Along with the function information, booking status is also noted in one of the columns. Each enquiry is followed up until the function is confirmed.

Phase- 2 The bookings are confirmed only on the receipt of the deposit amount. Usually, 50 percent of the expected bill amount is taken as deposit. Once the booking is confirmed, the details are taken down in a format called 'Contract agreement'. This format contains all the details such as date and time of the function to be held and requirements such as type of the set-up and menu requested by the client, amount received and balance to be paid. This format is used for a mutual and common understanding between the client and the hotel. This also stands as a legal document for the deal. Other than the above information, this format has terms and conditions that are to be accepted by the client. This document is signed by both the parties, that is, the guest and the hotel manager. Once the contract is agreed upon, a deposit amount is taken from the client and a receipt is issued for the same. A copy of the receipt is attached to the contract document.

Hotel ABC

Booking Diary

Date: 17-11-2018

Day: Saturday

Venue	Meal	Nature of the Function	Name of the Client	Contact No.	Pax	Status	Remarks
Banquet Hall	B'Fast Lunch Dinner	Seminar	Mr Muralimohan	9854576650	55	Tentative	
Ballroom 1	B'Fast Lunch Dinner	Birthday Party	Mr. Kishore	8986871234	150	Confirm	cake to be ordered
Ballroom 2	Dinner						
Board Room	B'Fast Lunch Dinner	Board Meeting	M/s Indus Ltd	66749238	25	Tentative	8 am-11 am
Pool Side	B'Fast Lunch Dinner	Cocktail Party	Mr. Prasad	9957371049	100	Confirm	

Fig: Format of Booking Diary

Phase-3 Just before the function date

Function Prospectus

<table>
<tr><td colspan="3">Function Prospectus</td><td>FP No.:</td></tr>
<tr><td colspan="2">Day Date</td><td>Time Type of function</td><td>Venue</td></tr>
<tr><td colspan="2">Name of the guest</td><td>Contact Tel No.
Office
Res:</td><td>Address</td></tr>
<tr><td colspan="2" rowspan="2">No. of guests

Guaranteed:
Expected:</td><td>Plate: Rs.
Hall rent: Rs.</td><td rowspan="2">Pick up time
Soup:
Snacks:
Lunch dinner:</td></tr>
<tr><td>Board to Read</td></tr>
<tr><td colspan="2">Special Instruction</td><td colspan="2">Kitchen</td></tr>
<tr><td colspan="2" rowspan="6">Engineering
Air conditioning
On at:
Microphone
• Podium Nos @
• Collar Nos @
• Cordless Nos @
• Table Nos @
• LCD Nos @
• Overhead Nos @
• Carousel Nos @
• Screen Nos @
• Electronic pointer Nos @
• TV Nos @
• Video scoop Nos @
• Channel music
• Special lighting
House keeping
• Cloakroom attendant
• Flower type
Set-up
• No. of buffers
• Ice carving
• Banquets
• Theatre style
• U-shape
• Boardroom
• Classroom
• Informal
• Fish bone
• White Board
• Dias
• Pads
• Pencils
• Entertainment
• Photographer
Videographer</td><td colspan="2">Arrival time:
Amt:</td></tr>
<tr><td colspan="2">Menu</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="2">PMT:</td></tr>
<tr><td colspan="2">End time</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Beverages</td><td>Rates</td><td colspan="2">Billing instructions</td></tr>
<tr><td></td><td></td><td colspan="2">Advance paid Rs.
Date:</td></tr>
<tr><td></td><td></td><td colspan="2">Balance amount
Cash Cheque Bill of company</td></tr>
<tr><td colspan="4">Distribution GM/Chef/Dis bar/EHK/Stores/BQTS/ENGG/Banquet manager accounts manager</td></tr>
</table>

Fig.: Format of Function Prospectus

(Approx. a week early) the 'Function Prospectus' is issued. This is made in multiple copies to distribute to all the departments such as housekeeping to ensure cleaning of area and flower arrangements, to the front office for display on the board to read, to the account section for processing of bills and cheques, to food and beverage controls to keep a check on the stocks and liquor distribution, and to the engineering department to provide special equipment, etc. The function prospectus sheet is very important format that includes name of the booking party, date and time, billing address, menu details, mode of payment, price per head, nature of function, number of expected and guaranteed pax, venue of function and other extra equipments required. This document is duly signed by the banquet incharge before sending it to the concerned departments. Copies of the function prospectus should be sent to the banquet operations department, kitchen, housekeeping, front office, engineering, security, food and beverage controls, finance and human resource department.

2.9.4.3 Menu

A banquet menu is a fixed menu at a set price offering usually no choice whatsoever to the customers, unless the client informs the caterer in advance that certain guests require, say, a vegetarian or non-vegetarian meal, and is available to all guests at a predetermined time. Meals are served in courses, which may vary from four to six. The price ranges offered should suit the pocket of the target clients. The banquet menus are complied by a team of managerial staff considering cost, profit margin, style of service, production skill, service skill, equipment availability, dietary needs, availability of raw ingredients and guest preferences. The complied menus are neatly printed and filed in the folder which will be discussed with the potential client at the time of booking. The banquet manager may assist the host in selecting the dishes during the booking of function. The categories of dishes offered in Indian menu are salads, soups, Indian breads, fish, chicken, mutton, paneer, vegetables, rice or biryani, dal, sweets and ice cream. Each of the categories have more than eight dishes thus offering more options to the host to choose from. The number of categories and the dishes under each category a host can avail are predetermined by the hotel. The number of choices offered will vary according to the price. The prices for non-vegetarian and vegetarian menu.

2.9.4.4 Function Contracts

This is the most important sheet to be used in the function rooms. It contains menu, deposit amount, date, contact details, number of pax, extra facilities and terms. Once this sheet has been signed by the representative of the hotel and the guest, it is treated as a valid contract and legally bound. A deposit is required for almost all banquet events. The deposit protects both parties. The banquet hall will not sell the date that the client has reserved to another client; while the client will not cancel the event without losing the money that has been put down the event. Each hotel should determine the amount of deposit that it will charge. It should be expensive enough to deter the client from canceling the party. Different operations have different policies on refunding the deposits. When booking functions, clients should be informed of the policy on guarantees of the establishment. A guarantee is a promise made by the host of the party that a certain number of guests will show up for the party and that the client will pay for that number unless more guests attend. Purposes of banquet contract are as follows:

- Both the parties have their rights protected.

- It details what the penalties are if either side does not come through with its part of the agreement.
- It details the necessary deposit and advance to be paid.
- It details the items and facilities to be provided to the guest.
- It details the name of the party against whom bill is raised

Function Contract

Hotel ABC	Date: 30.09.2018 Day: Friday
Name of the Guest	**Menu**
	Vegetable Spring Rolls
Contact Details	Paneer Tikka
9987432910	Vegetable Manchow Soup
Type of Function	
Birthday Party	Navratan Korma
Date & time	Paneer Pasanda
25/12/2018 at 6 pm onwards	Aloo Kofta Curry
Number of Pax	Bhendi Fry
150 (expected 180	Dal Tadka
Price per head	Naan / Roti
450	Vegetable Pulao
Table Plan	Raita
Theater set-up	Papad
Extra facilities required	curd
Stage decoration and 5 Kg cake	Gulab Jamun
to be ordered.	Vanilla Ice Cream
Deposit Paid: Rs. 10,000	Receipt No: 006391
Terms & Conditions	
Signature of the Guest	Signature of Hotel Manager

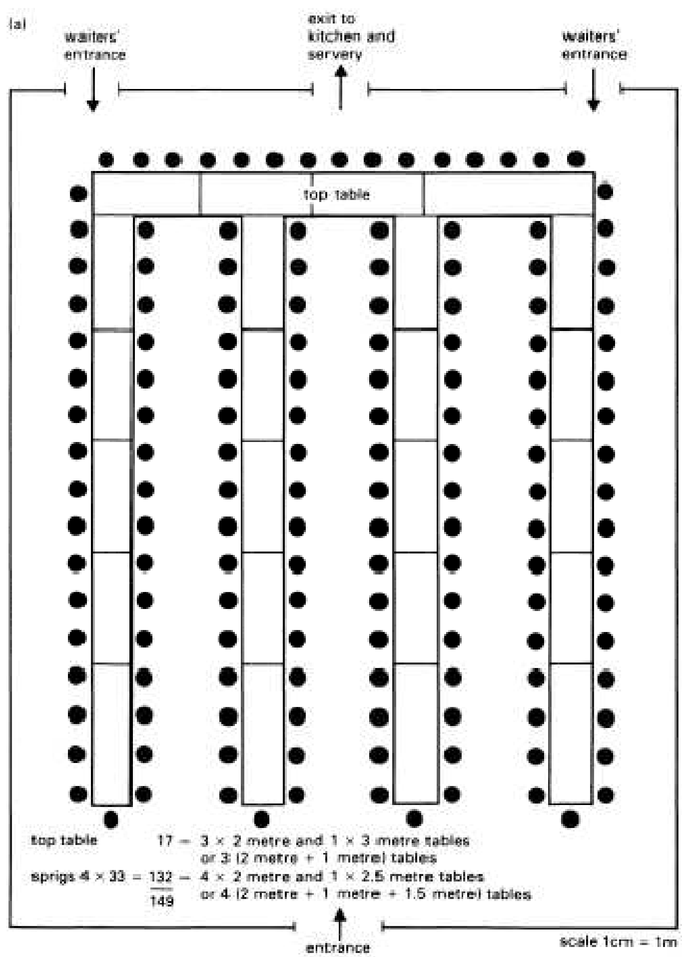
2.9.4.5 Seating Arrangements

On the total number of people attending a function it must be determined how many will be seated on the top table and how many on the sprigs, round or oblong tables, making up the full table plan. It must be known whether the number of guests on the top table includes the ends, and care should be taken to avoid seating 13 people on this table. All tables, with the exception of the top one, should be numbered again avoiding using the number 13. It is permissible to use 12A in place of 13. The Table numbers themselves should be on stands at such a height that may all the seen from the entrance of the banqueting room; the approx. height of the stands being 30 inches. After the guests are seated and before the service commences, these stands are sometimes removed. As far as possible, when formulating the table plan, one should try to avoid seating the guests with their backs to the top table. There are three copies of the seating plan. Spacing means space between two sprig tables including the width of the chairs and gangway from wall to back of the chair and gangway. To calculate the space required for any particular function, one must know some standard measurements of the furniture used in a banquet department. There some standard guidelines to be followed while doing seating arrangement. The basic types and sizes of banquet furniture are as follows:

a. Rectangular/ buffet table (Big) : 6' x 3' x 2.5'
b. Rectangle/ buffet table (Small): 5' x 3' x 2.5'
c. Conference table : 6' x 1.5' x 2.5'
d. Half moon table : 2' Radius
e. Round table: 5'(Diameter) 2.5' (Height)
f. Serpentine table : 8' (Outer Diameter) 3' (Inner Diameter)
g. Banquet chair dimension: 1' – 9" x 1' – 7" x 2.5' (L x W x H)

Standard guidelines for leaving space while planning a banquet set-up are as follows:

a. Aisle : 3'
b. Space from the wall to the table: 5'
c. Space between rows: 1.5'
d. Space between the head table and the row tables: 6'
e. Space between a table and a chair: 1'



CHECK YOUR PROGRESS- VI

Q1 Summarize the key experience of any mega event that you have attended

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Q 2 Discuss the important features of private events with examples

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2.10 SUMMARY

The unit has aimed to identify the principles, practices and applications of food production in the food service industry; Inherent in the process is the hygienic management concept necessary to deliver a clean, safe and healthy product all the time. it has focused on the knowledge required by a manager to operate and manage a food production system efficiently. This knowledge is gained through an understanding of the basic principles of menu-planning and food production system, which is also, linked to the purchasing and storage processes. As with every manufacturing system, standardization is essential to maintain the consistency of the products within the financial constraints, and therefore the chapter has also attempted to demonstrate the principles and importance of operational control. Establishing control over any phase of operations requires the four-step control process. One begins by establishing standards and standard procedures. The previous chapter presented some of the common standards and standard procedures for beverage purchasing. The use of these helps to ensure that adequate quantities of beverages of the proper quality are purchased at optimum prices.

The processes associated with beverage operations are the same in relation to beverage control; that is, like food, beverages must be purchased, received, stored, issued, produced, and sold. As with food, it is possible for excessive costs to develop in each area of operation. Sufficient beverages must be purchased so that a suitable supply of each beverage is on hand when needed. The beverages must be properly received and stored so that the quality is retained and that all beverages are secure. The beverages must be issued,

and drinks prepared, in a way that will control costs and quality. Finally, all sales must be recorded so that the establishment is assured of receiving the appropriate revenue.

Key factors with greater impact of tourism includes Meeting and Business Events Competency standards in building and improving required skills, knowledge and their application in the Tourism and Hospitality Industry, Identifying and controlling the critical elements of Supply Chain Management, rigorous research on the collaboration and integration of SCM and MICE industry. The nation's economic condition is directly proportional towards Tourism which in turn is directly proportional towards the Nation's Infrastructure and towards the research on improving tourism. With tourism industry flourishing, identifying key areas of the MICE industry, focusing on the various theoretical and methodological characteristics of the ways in which knowledge management applications are applied to supply chain, along with greater help of technological developments, and further research on collaborating the Supply chain with the MICE industry, Nations are going to compete and emerge as major players of touristic destinations

2.11 GLOSSARY

Agenda: A list of speakers, presentations and associated timings, given to conference delegates as part of the pre-registration or on-site registration.

Attendance: The overall total number of people at an event.

Audio-visual: Has both a sound and visual component. Typically in the form of images and recorded speech or music

Award Ceremony: An event where the performance of individuals and groups in a company or industry are recognised. It is use to honour and motivate key staff.

Blind receiving- In this there is no invoice accompanying the delivery of items from the supplier. Invoice is generated at the stores itself while receiving the supplies.

Budget. It is an estimate or plan of expenditure in relation to income; periodic (esp. annual) estimate of an organization's revenue and expenditure; amount of money needed or available is called as budget.

Client: The person or party that hires an event planner and/or various event components required to hold the event

Concert: A public performance of music (singer(s) and/or instrumentalist(s)) with entertainment purposes. Concerts could have various forms: indoor or outdoor, paid or free, for-profit or fundraising/cause events.

Conference: discussion about a specific matter, mainly organized by a learned society, and based on a precise agenda. The conference has a didactic goal but can also be the opportunity to exchange knowledge with the participants. It is often organized on the occasion of a congress or a symposium

Crockery. Crockery or chinaware is made up of silica, soda ash, & china clay, & dry glazed to give its a fine finish. It is available in different design & colour. It is more heat resistant to glassware. These are available in different types like – bone china, earthenware, stoneware & porcelain.

Cultural Event: An event related to and honoring culture in its various forms and aspects and considered as valuable, enriching and enlightening for the society.

Cutlery. The term cutlery denotes all forms of knives & other cutting equipments. Like – fish knife, butter knife, gateaux slicer, etc.

Duty roaster. It is a list or plan showing turns of duty or leave in an organization. Having a duty roster not only helps keep your staff organized and minimizes the amount of time spent on hotel chores but also makes a measurable difference in work done by different staff.

Entertainment: A show or performance designed to amuse and entertain an audience.

Event communication: refers to a non-media communication tool, which can be internal or external, used by companies or institutions with the intention of organizing an event, generally in the form of a trade fair, a congress, an incentive, a gala dinner etc… This event is thought and realized by a specialized agency, comparable to an advertising agency.

Event Manager: A person in charge of planning, organising, and executing all types and sizes of events.

Event Planner: A person who coordinates all aspects of professional meetings and events.

Fair: A public,live event gathering people for a variety of entertainment or commercial activities. It could last from one afternoon to several weeks.

Feedback: The process of sharing thoughts and observations – can be positive or negative.

Forecasting. It is an approximation, prediction, or projection of food & beverage sales based on past record and/or information available at the time, with the recognition that other pertinent facts are unclear or unknown.

Formal buying- In this methods quotations are invited from suppliers for items against fixed specification. The request for bids may be made through news papers or any other media. All the quotations are received sealed, and are opened on a said day when it is made final.

Glassware. Glassware is a collective term for various types of glasses which mainly found in bar section. There are various types of glassware of different shapes and sizes, all serving their own purpose. Learning which drinks belong to which glass is beneficiary to both you and your customers.

Goal: A specific intended result of a strategy; often used interchangeably with Objective.

Gross profit or kitchen profit- the excess of sales over the cost of food expressed as a percentage, or in financial terms

HACCP. Hazard Analysis and Critical Control Point (HACCP) is a systematic preventive approach to food safety and pharmaceutical safety that addresses physical, chemical, and biological hazards as a means of prevention rather than finished product inspection.

Hedging- is a buying procedure. In this items are bought in advance at lower rate in speculation of rise in price in future.

Hollowware. The term hollowware is also a collective term for all those utensils whether apart from cutlery or crockery which used to keep or hold dishes/items, for example, water jug, entrée dish, portion bowl, butter dish, etc.

Incentive Travel / Incentive: A form of group travel, paid by companies to reward their top performers or customers by sending them on unforgettable trips of a few days' duration. Incentive events are always 'live'/in-person events.

Informal buying- In this method, the buyer invites quotations from the suppliers for items according to their specification. the supplies are then selected and then bought.

Invoice- An invoice is essentially a detailed bill left by vendors and outside suppliers for goods or services rendered to a company.

Job description. **Job descriptions** are written statements that describe the duties, responsibilities, most important contributions and outcomes needed from a position.

Job specification. It contains the information in relation to the qualities sought in a job candidate. Before hiring a catering department employee, a manager generally looks for various qualities like – technical skills, interpersonal skills & conceptual skills.

Live Event: 'Live' events or in-person events are events whose attendees are physically present at a certain (physical) location as opposed to online or virtual events.

Mise en place. It is also called as "Putting everything in its place or making ready everything" before starting service in restaurant & other food & beverage outlets.

Multiplier effect. It can also be called as "Multiple effect". In economics, the multiplier effect or spending multiplier is the idea that an initial amount of spending leads to increased consumption spending and so results in an increase in national income greater than the initial amount of spending.

Organization: The command, control and feedback relationships among a group of people and information systems. Examples: a private company, a government agency.

Purchase order- Is a formal written document which states all the specifications required for purchase of items. This order is sent to the supplier for supplying items.

Registration Fee: Cost of attending a conference. Fees can vary according to the time of registration, level of participation and also membership type

Seminar: most of the time organized by a private company with the intention of training and exchanging on a specific topic, the seminar gathers, without imposed regularity, professionals that may be members of this company.

Service area. Service areas are platform or place where foods are kept after final cooking, so that steward come & receive the prepared food & serve to the guest.

Stakeholder: An individual or group with an interest in the success of an organization in delivering intended results and maintaining the viability of the organization's products and services. Stakeholders influence programs, products, and services

Standard yield- Standard Yield of a particular food item may be defined as usable part of that particular food product after initial prepration, or the edible part of the product after preparation and cooking.

Stopover/transfer: when a group of passengers stay for more than 24 hours at the same place, we use the word stopover. If the passenger does not leave the airport or stays less than 24 hours in the country, we use the word transfer

Tender- This type of formal buying method. In this sealed structural documents invited by organization from respective sellers for a fixed type of item and according to fixed specification.

Venue Manager: The person in charge of a location or event space.

Venue: A place to hold your event.

Welcome Signage: A sign that introduces or welcomes visitors to the venue/ event.

Work flow. A workflow consists of a sequence of connected steps. It is a depiction of a sequence of operations, declared as work of a person, a group of persons, an organization of staff, or one or more simple or complex mechanisms.

Workshop: workshops generally have more hands-on and group activities. The sessions are quite interactive and require individuals to participate.

Yield management. Yield management is the practice of maximizing profits from the sale of perishable items like food, hotel rooms / airline seats, by controlling price and inventory and differentiating product & service.

2.12 REFERENCES/BIBLIOGRAPHY

- Lilicrap, D. and Cousins, J.; Food and Beverage Service; Eighth Edition, Hodder Education, London, 2010.
- Davis, B., Lockwood, A. and Stone, S.; Food and Beverage Management; Third Edition, Elsevier, New Delhi, 2008.
- Bhatnagar, S., K.; Managing Food & Beverage Operations, First Edition, Frank Brothers & Co., New Delhi, 2009.
- Bagchi, S., N. and Sharma, A.; Text Book of Food & Beverage Service, Third Edition, Aman Publications, New Delhi, 2012.

2.13 SUGGESTED READINGS

- Food & Beverage Management 3/e John Cousins, David Foskett & Andrew Pennington, Good Fellow Publishers
- Foodservice Management: Principles and Practices by June Payne-Palacio Ph.D. RD and Monica Theis, Prentice Hall Publishers
- Foodservice Management Fundamentals by Dennis R. Reynolds; Wiley Publishers

2.14 TERMINAL QUESTIONS

Short answer type questions:

Q1. What is Open Market Buying?
Q2. What do you mean by Blanket order purchasing?
Q3. Draw a chart of purchasing activity.
Q4. How will you select a supplier or purveyor?
Q5. What are the principles of storage?
Q6. What are the objectives of food cost control?
Q7. The food cost of an appetizer is `110 and the selling price is ` 275. Find the food cost ratio and the gross profit obtained from the item?
Q8. What do you mean by standard yield?
Q9. What is the importance of Standard recipe?
Q10. What are the different types of yield test? Give formula of each

Write short notes on:

1. Standard Purchase Specification
2. Negotiated buying
3. Standard Purchase order
4. Meat tags
5. FIFO
6. Portion controlling equipments
7. Standard recipe
8. Standard yield
9. Food cost control
10. Job responsibility of a purchase manager

UNIT: 03
THE FACILITIES

Structure

3.1 Introduction
3.2 Objectives
3.3 Facilities Planning and Design
- 3.3.1 Elements of Design
- 3.3.2 Principles of Design
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- 3.4.1 Criteria of Selecting and Purchasing Equipment
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  - 3.4.1.8 Meal Type
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  - 3.4.1.10 Shapes, Design and Patterns
  - 3.4.1.11 Ease of Storage
- 3.4.2 Categories of Equipment
  - 3.4.2.1 Glassware
  - 3.4.2.2 Crockery
  - 3.4.2.3 Tableware (Flatware, Cutlery & Hollowware)
- 3.4.3 Furniture
- 3.4.4 Disposables
- 3.4.5 Linen
- 3.4.6 Handling, Care and Maintenance of Equipment

3.5 Environmental Management
3.6 Summary
3.7 Glossary
3.8 References/Bibliography
3.9 Suggested Readings
3.10 Terminal Questions

3.1 INTRODUCTION

The experience of dining out is largely a series of events which are experienced by a diner and covers both tangible and intangible events. The process starts with when the customers enters any food & beverage service establishment and lasts till the customer leaves the restaurant. The emotions involved during the entire time period are also considered valuable. The tangible aspects include food and drink and the intangible aspects comprises of service, atmosphere, mood, etc. Even though, the tangible products are of importance, it is the intangible aspects which affect the overall experience of a customer in the outlet. The creation of atmosphere, by the right choice of décor, furnishings and equipment, is therefore a major factor that contributes to the success of the foodservice operation. A careful selection of items in terms of shape, design and colour enhance the overall décor or theme and contributes towards a feeling of total harmony.

3.2 OBJECTIVES

After reading this chapter, you will be able to:

a) Understand about the usage of various equipment in food & beverage establishment,
b) Design criteria for consideration while purchasing equipment for a food & beverage service establishment.
c) Classify various equipments falling under the categories of Chinaware, Silverware, Glassware, Disposables and other equipment.
d) Identify various types of furniture, linen, fixtures and other equipment required for food and beverage establishments.
e) Understand the importance and methods involved in maintenance of various equipments.

3.3 FACILITIES PLANNING AND DESIGN

In addition to earning revenues, food and beverage outlets also have a role in the image-building of the hotel. Guests may come to enjoy the food in a hotel for pleasure, convenience, or from necessity. Whatever the reason for the dining, they will always expect a certain standard of service and comfort. It is hence essential for each and every hotel employee to understand the importance of a food and beverage outlet for a guest. The F&B staffs, in particular, have the responsibility of making the restaurant a place where the guest may enjoy their meals. The design and décor of restaurant is utmost important for achieving guest satisfaction and repeat business for the hotel. A interior design describes a group of various yet related projects that involve turning an interior space into an effective setting for the range of human activities that are to take place there It is the arrangement of

line, direction, form, shape, colour, and texture and arranging them aesthetically and tastefully. Interior decoration is the art of creating a pleasant atmosphere in the living room with the addition of a complex of furnishings, art, and crafts, appropriately combined to achieve a planned result or design. These arts and crafts have to be well maintained by the housekeeping department. Decorating flowers is a creative and stimulating art which often carries a message or theme. Flowers and indoor plants add colour and beauty to a room.
It is of two types:-

- Structural design
- Decorative design

Structural Design is suitable to the purpose for which the objects are made. All objects have structural design. It must fulfil the following requirements:

- Design must be suited to its purpose
- It must have correct proportions
- It must be simple
- The material used must be suitable to its purpose.

Decorative design makes the structural design more beautiful .A design added to increase the beauty of an article is called decorative design. It requires:

- Decoration must be used in moderation
- It should be placed at structural points to strengthen the shape of the object
- It should enrich and not interfere with the structural design.

A design should not only be beautiful but also have individuality, character, style and utility e.g.-chair.

3.3.1 Elements of Design

Design elements are the basic units of a visual image. These elements include:
The 3 f's: Form, Follows and Function are known as the 3 f's of Design. Form refers to what something looks like, and function refers to how it works.

Space: Space is the area provided for a particular purpose. It may have two dimensions (length and width, such as a floor, or it may have three dimensions (length, width, and height). Space includes the background, foreground and middle ground. Space refers to the distances or areas around, between or within components of a piece. There are two types of space: positive and negative space. Positive space refers to the space of a shape representing the subject matter. Negative space refers to the space around and between the subject matter.

Line: Line is the basic element that refers to the continuous movement of a point along a surface, such as by a pencil or brush. The edges of shapes and forms also create lines. It is the basic component of a shape drawn on paper. Lines and curves are the basic building blocks of two dimensional shapes like a house's plan. Every line has length, thickness, and direction. There are curved, horizontal, vertical, diagonal, zigzag, wavy, parallel, dash, and dotted lines.

Colour: Colour is seen either by the way light reflects off a surface or in colours light sources. Colour and particularly contrasting colour is also used to draw the attention to a particular part of the image. There are primary colours, secondary colours, and tertiary colours. Complementary colours are colours that are opposite to each other on the colour wheel. Complementary colours are used to create contrast. Analogous colours are colours that are found side by side on the colour wheel. These can be used to create colour harmony. Monochromatic colours are tints and shades of one colour. Warm colours are a group of colours that consist of reds, yellows, and oranges. Cool colours are group of colours that consist of purples, greens, and blues.

Shape: A shape is defined as an area that stands out from the space next to or around it due to a defined or implied boundary, or because of differences of value, colour, or texture. They can be geometric or organic. Shapes in hotel decor and interior design can be used to add interest, style, theme to a design like a door. Shape in interior design depends on the function of the object like a kitchen cabinet door. Natural shapes forming patterns on wood or stone may help increase visual appeal in interior design. In a landscape, natural shapes, such as trees contrast with geometric such as houses.

Texture: Texture is perceived surface quality. In art, there are two types of texture: tactile and implied. Tactile texture (real texture) is the way the surface of an object actually feels. Examples of this include sandpaper, cotton balls, tree bark, puppy fur, etc. Implied texture is the way the surface of an object looks like it feels. The texture may look rough, fizzy, gritty, but cannot actually be felt. This type of texture is used by artists when drawing or painting.

Form: Form is any three dimensional object. Form can be measured, from top to bottom (height), side to side (width), and from back to front (depth). Form is also defined by light and dark. There are two types of form, geometric (man-made) and natural (organic form). Form may be created by the combining of two or more shapes. It may be enhanced by tone, texture and colour. It can be illustrated or constructed.

Value: Value is an element of art that refers to the relationship between light and dark on a surface or object and also helps with Form. It gives objects depth and perception. Value is also referred to as tone.

3.3.2 Principles of Design

The elements of art are line, form, colour and texture. This must be handled within conformity with certain principles and laws that govern their use if beauty is to result. Every art field has certain guidelines that are to be followed and the same is applicable in planning of interiors.

Scale and proportion: By habit, the human eye becomes accustomed to definite dimensions in daily life. Some of these dimensions are fixed for convenience. Proportion is the law of relationship, which demands that all space divisions should be pleasingly related to each other and to the whole. The Greeks developed a great deal of calculations about space distribution and a scale of space relationships. These skills are used even today. The normal ratios are 2:3, 3:5 and 5:8. These forms are equal divisions. A square room is more difficult to arrange and uninteresting to live in. Rooms should be preferably furnished with smaller furniture types and consistent patterns. The furniture should be in proportion to the size and height of the room and its architectural features.

Balance: It is the principle of design, which produces a feeling of restfulness and contentment. Balance deals with quantity or number in the arrangement, colour and distribution of pattern or plain surfaces. Balance is the result of equalisation of attraction on either side of a central point. Balance can be attributed to colours, texture, pattern and light. There are two types of balance:

- Formal Balance
- Informal Balance

Formal Balance: Formal or symmetrical balance occurs when objects of equal size and weight are placed on each side and at equal distance from the centre. When they are identical, the balance is symmetrical.

Informal Balance: Informal or asymmetrical balance results when objects are arranged in such a way that a large one nears the centre, smaller ones away from the centre. Both types of balances are attractive. Formal represents intellect while informal represents feelings. This also has emotional significances.

Rhythm: This is the principle of design that suggests connected movement in a pleasant manner. It can be obtained through a repetition of light, forms, and colours or through a progression of rise or continuous line movement. Rhythm is achieved through repetition, progression, transition, opposition and radiation.

Emphasis: It is the principle of design that centres interest on the most important thing in the arrangement in a room. Emphasis may be centred on a painting, fireplace, window treatment or furniture grouping. All other parts must be subordinated to the interesting point. It is better to understand emphasised rather than over emphasized. Emphasis can be created at any point in the room. Dramatic use of art components creates emphasis i.e. Large and unusual forms, different surface patterns, more light elsewhere and unusual texture and contrasting colours.

3.3.4 Colour

Colour establishes an aesthetic connection between objects and set of mood. The study of colour may be approached from any of the five angles i.e physiologist, chemists, physicist and psychologists or people who works with pigments. Of the many theories of colour two are in common use. These are generally known as the Prang system and Munsell system.

Dimension of Colours: When the average person thinks of color, he or she usually considers the aesthetic aspects of color such as the shade and whether it’s light or dark; or a cool or warm tone. There are three properties or qualities that develop the 3-dimensional color space concept- distint as the length, breath and thickness of an object.

Hue: Hue represents the color itself—red, yellow, blue, etc. If you were to take the visible spectrum—red, orange, yellow, blue, indigo and violet—and place each color in a circle. The colour of an object is determined by the wavelengths of the light reflect. An object appears black when all the wavelengths are absorbed and white when all reflected.

Value: It is the one dimension of color space that can stand alone. Value represents the lightness or darkness of a given hue the value ranges from 0 for pure black to 10 for pure white. In the absence of hue you would simply have black, white or shades of gray.

Tint is the term used to describe a hue that has been lighted in value from its normal value. Pink is tint of red. Tints are achieved by mixing white with a pigment or by using a pigment in a dilute form to allow for the white of the ground to show through.

Shade is the term used to describe a hue that has been darkened in value from its normal value. That your coat is not true blue but some blend of blue with other colors. Maroon is a shade of red. Shades are achieved by mixing black with a pigment. **Note-** This use of the term shade is specific to color theory. In common usage a "shade" is usually a variation in color of a hue. To say "your coat is a nice shade of blue" usually means

Intensity/Chrome: It refers to the purity of a hue and the brightness or dullness of a color Intensity is also known as **Chroma** or **Saturation**. The highest intensity or purity of a hue is the hue as it appears in the spectrum or on the color wheel. A hue reduced in intensity is called a **Tone**. A tone is a hue with reduced or dulled strength.

WARM AND COOL COLORS

Warm colors in the most general terms, are related to the **yellow/red** side of the **color wheel** chart. They attract attention and are generally perceived as energetic or exciting. **Cool colors,** on the other hand, sit on the **blue/green** side of the color wheel; they are generally perceived as soothing and calm.

Figure 3.1 Prangs' colour wheel

The 12-part colour wheel is based on the three **primary colours** (red, yellow and blue) placed evenly around a circle. Between the three primaries are the **secondary colours** (green, orange and violet), which are mixtures of the two primaries they sit between. The **tertiary colours** fall between each primary and secondary. Between yellow and orange, for example, is yellow orange; between blue and violet is blue violet and so on. All the colours around the outside of the colour wheel are called **saturated colours**. They contain no black, no white and none of their complimentary or opposite colour.

Munsell sytem: When the average person thinks of color, he or she usually considers the aesthetic aspects of color such as the shade and whether it's light or dark; or a cool or warm tone. However, A.H. Munsell saw color in terms of its relationship to other colors, which led him to develop his 3-dimensional color space concept. He described color space using objects with which most people would be familiar, such as a "color tree" to teach and communicate color with greater understanding and clarity**.**

Colour Scheme

Colour is a very potent feature in interior design because it evokes almost immediate response from the eye and can produce both physical and psychological reaction. Designers can work wonders with colour and colour combinations if they have a good knowledge of colour and its effects.

A good decorator always combines both value and practicality to evolve a scheme, which will work to the best advantage of the interiors. Standard colour harmonies are divided into two main groups:

1. Similar or Related Harmonies
2. Contrasting or Complimentary Harmony

Similar or related harmonies: Selecting colours that are close to each other on the colour wheel produces related harmony. This includes two types of schemes

- monochromatic
- analogous schemes.

Monochromatic harmony indicates the selection of one colour or hue. Different values must contrast in a single colour harmony. This scheme is quite safe, effective, and peaceful in small areas. However, tends to get tiresome and monotonous, if carried out in an entire room. Additional interest may be created by providing contrasts and combining textures through various surfaces.

Analogous scheme is produced by a combination of adjacent hues that have one hue in common. The analogous are a combination of primary or secondary colours with two intermediate colours on either side of it. This scheme is quite restful and shows greater varieties.

Contrasting or complimentary harmony: Combining colours that are opposite to each other and far away on the colour wheel produces complimentary harmony. They should differ in value and intensity.
This group includes different types:

- Complimentary harmony
- Double complimentary harmony
- Split complimentary harmony
- Triad harmony
- Accented Neutral Harmony

Complimentary Harmony: This is obtained by using colours lying opposite each other on the colour wheel e.g. Blue and orange with yellow and violet etc. This type of harmony provides a richer effect of colour than related harmony. It can be successfully used for rooms, window displays and outdoors. It should have strong colour intensity.

Double Complimentary Harmony: In this scheme, two directly adjacent colours and their complimentary colours are used together for a double complimentary harmony e.g. Yellow and yellow green with red and red violet. In using this scheme, the outstanding view should contain the largest amount of colours, that is, the dullest of all the colours. The next may be a little bright but should be partially neutralised. The fourth colour, which is used in the least quantity, should have the brightest intensity.

Split Complimentary Harmony: It is the combination of primary or intermediate colours on either side of the colour wheel; compliment yellow with red violet and blue violet, blue with red orange and yellow orange, red with blue green and yellow green etc. A true split complimentary scheme is a harmony of similar colours with a note of contrasting colours. The amount of different values and intensities should be adjusted to prevent a shocking effect.

Triad Harmony: This is a combination of any three colours that form on equilateral triangle on the colour wheel. It requires careful treatment and can provide the richest and most interesting harmony. But if not carefully planned, it can have a very irritating effect e.g. Red yellow blue orange, violet & green and red violet blue green and yellow orange.

Accented Neutral Harmony: It is a harmony in which the largest area of the room will be neutralised with a smaller area in a brighter colour.

EMOTIONAL IMPACT OF COLOUR

How Colour Affects Mood: Relying strictly on the colour wheel to make decorating decisions leaves an important factor out of the equation: the moods that colours can create. The colours you live with really do influence your emotions. Some palates lighten and brighten your mood while others pacify or purify. We respond to colour with our hearts, not just our heads, so it's important to choose wisely. Understand that colours behave in three basic ways -- active, passive, and neutral -- and you can easily match every room's colours to your personal desires and taste and to the room's purpose.

Active Colours: On the warm side of the colour wheel, active colours include yellow, orange, and red. These advancing, extroverted hues stand out to greet and sometimes dominate. They inspire conversation and an upbeat attitude. Red, the most intense, pumps the adrenaline like no other hue. Small doses of the fire-engine hue wake up an entry or turn up the heat on a hearthside den. Golden or lemony yellows -- good for home offices and kitchens -- unleash creative juices.

Passive Colours: The cool colours - blue, green, and purple - will pacify, staying quietly in the background to calm and restore depleted spirits. They're ideal for bedrooms or private retreats, but if yours is a cold climate, you may want to work in some sunny accents for warmth and contrast.

Neutral Colours: Neutralizers are the "uncolors": browns, beiges, greys, whites, and taupe. They neither activate nor pacify but combine and cooperate, bridging together different rooms and colours. They're good transitions on woodwork, trim, hallways, and functional spaces like kitchens and baths, but even living rooms can benefit. Darker neutrals tone down other colours; crisp white intensifies them.

Colour Language: Curious about how colour influences mood? Here are a few examples:

> **Pink:** soothes, acquiesces; promotes affability and affection.
>
> **Yellow:** expands, cheers; increases energy. It is warm but not over bearing. Cream and light tans are suitable background colours.

White: purifies, energizes, unifies; in combination, enlivens all other colours.

Black: disciplines, authorizes, strengthens; encourages independence.

Orange: cheers, commands; stimulates appetites, conversation, and charity. Beige and tan are favoured as background colours.

Red: empowers, stimulates, dramatizes, competes; symbolizes passion. It is the strongest of colours and is associated with danger. When reduced to a tint of pink it losses its intensity and becomes milder and delicate. As a shade, red may give a warm brown.

Green: balances, normalizes, refreshes; encourages emotional growth. It is associated with nature, health and well-being. It provides dignity and solidity.

Purple: comforts, spiritualises; creates mystery and draws out intuition.

Blue: relaxes, refreshes, cools; produces tranquil feelings and peaceful moods. It is associated with simplicity, purity, truth and meditation. It stimulates intellectual activity but in the extreme, it could lead to depression.

Violet: It is the colour of tension and ambiguity. It represents sensitivity, subtlety and has lavender in playful and magical. Deep violet should be used with caution.

A combination of colours from the three families i.e. Warm, cool and neutral in a correct balance will provide attractive and comfortable interiors. Colours may also have an advancing or receding effect. Warm colours tend to appear closer than their actual distance while cool colours tend to have a receding effect. Spaces can be made to seem larger or smaller through choice of colours and shape. A long narrow space can be made to seem less long and less narrow through the use of warm colours on either ends and cool colours on the sides. A low ceiling will seem less oppressive in light colours where as a high ceiling will appear lower in dark tones.

3.3.5 Functional Consideration in Colour Scheme

The function of the place should be manifested through the colour harmony. The maintenance availability and cost must be considered. Light colours are soiled easily and may prove to be more expensive in terms of time and money. In private areas, it is important to create a personalised colour atmosphere. In a room shared by many groups, preference should prevail, e.g. Restaurants, lobby and other public places. Sub divide a room into the following areas of colour distribution - dominant area (walls, floor and ceilings) medium area (draperies, upholstery, furniture and bed spreads), small furniture (cushions, pillows and table cloths), accent areas (accessories, paintings, lamp shades etc.)

According to the law of chromatic distribution, the largest area should be covered with a neutralised colour. As the area reduces in size, chromatic intensity may be proportionally

increased. Any two hues may be used if they are at the proper degree of neutralisation. They should preferably contrast in their values, e.g. Like walls and dark floor where the draperies and upholstery are of an intermediate value. Contrast creates interest; neutral colours are formal while brighter values are more informal. A neutralised colour appears more neutral in small areas than in larger areas.
Colours selection is influenced by climate, orientation activity and preference. In hotels, entrances, lobbies and front desk areas invite the use of strong colours to make a positive first impression. Lobbies and lounges can have warm colours to support comfort but cooler tones in warm climate. All the schemes should be generally agreeable to the guest. Corridors leading to guest room should be given a lively colour treatment. In bedrooms, intense colour must be avoided on ceilings and large wall areas. Restaurants may fail by using insensitivity to colour since appetite is influenced by light and colour. Black, grey, blue and violet should be avoided.

3.3.6 Lighting

Light is an essential element of every interior scheme and should be given special attention in the initial plan of each room. Sufficient and conveniently planned outlets should be an integral part of architectural planning. Planning of artificial light presents a major problem, as it requires both aesthetic and practical considerations. The average room lighting equipments and fixtures must be consistent with the style of the décor and must consistently contribute to the character and atmosphere of the room.

Types of Lighting

Natural: Day light provides natural light and varies according to the position of the sun and time of the day. Light is necessary for colour visibility. Textures are also influenced by light absorbed or reflected by them.

Artificial: These are of two types:

- Incandescent
- Fluorescent

Incandescent Lighting: In this type of lighting tungsten filament is sealed in a glass bulb and heated to a point at which it glows. The glass bulbs are usually made of standard lined glass/heat resistant borosilicate glass, which permits higher voltage used for outdoor lighting. Same bulbs are finished with an acid solution from inside which etches the glass and gives a frosted effect.

Fluorescent Lighting: This consists of sealed glass tubes, which contains mercury and halogen glass. It has electrodes at each end and on the inside, the tube is coated with a florescent material containing phosphorous. When a current is passed, the mercury vapour emits ultra violet light which is converted into visible light by the phosphorous on the inside surface of the tube. The lifespan of the incandescent lamp would be 750-2000 hrs and of a fluorescent light 1800-20000 hrs. Fluorescent lamps are suited for lower ceiling application and general lighting. They provide diffused light.

CONSIDERATION IN LIGHTING SELECTION

Function: The function of lighting must be evaluated in terms of quantity and quality of vision. The primary goal is visual clarity and to safeguard guest.

Safety: Safety is important in light consideration since improper lighting could prove hazardous to persons working in a particular area. Staircases require adequate lightings to prevent accidents. Proper wiring insulations and earthing should also be considered for safety.

Beauty: A close relationship exists between the type of lighting and appearance of colour. Wrong colour choices reduce the effectiveness of well-planned schemes. The designer should use brightness/ contrast to create visual interest. Interior lighting should be an integral part of the total designing of the area.

METHODS OF LIGHTING

Architectural lighting: It supplies functional lighting and is good for contemporary rooms.

- **Valence Lighting:** A historical fluorescent tube is placed behind a valence board, carting up light which reflects and then down, shining on the drapery by providing both direct and indirect light.

- **Cornice Lighting:** A cornice is insulated in ceiling and directs the light downward. It can provide a dramatic effect on drapery, wall covering and pictures.

- **Covered Lighting:** Covered lighting consists of placing a series of continuous fluorescent tubes in a group or placed at one or more walls of a room.

- **Soffit Lighting:** This is a method of direct lighting in which the illumination from the light source is built into the underside of soffits or beams used in staircases, reception, lounges etc.

- **Luminous Lighting:** This is recessed lighting to light up a particular area e.g. Kitchens, utility areas, bathrooms etc.

Non Architectural Lighting: This consists of the light reflected from walls and ceilings. Portable lamps may also be used for general overall light or localised light.

Other Lighting: Table lightings, point source, accent diffused and ambient lighting.

Lighting Systems: Types of lightings my be classified by the manner in which the light rays are directed on the object to be illuminated.

Direct Lighting: It is a type of light that is produced by most table and floor lamps. The light is directed downwards and the ceiling receives reflected light. This light produces sharp shadows and some times a glare. Direct lighting is usually combined with other types of lighting according to the requirements e.g. Spot lightings.

Indirect Lighting: In this type of lighting, the light is directed to the ceiling or walls from which it is reflected into the rooms. The immediate light source is secluded from view. Overall, room illumination with indirect lighting will diffuse or shadow less with low, less, light source brightness. When used above, indirect lighting is flat and uninteresting without shadows. It is suitable for general lighting of the covered valence and cornice fitting. Other lighting systems are semi direct and semi indirect lighting.

Light Fittings

- **Dimmers:** These are combined with on and off switches and control the level of lights on & off at one certain time or at different times in different rooms. Several dimmers can be attached to a single control.

- **Anti Burglar:** These lights function on a time switch which turn the lights on and off at a certain time or at different times in different rooms.

- **Door Switch**: This light is set in the doorframe and gets turned on when the door is opened.

- **Photo Cell Control:** Light sensitive units can replace switches at the entrance where a photocell card needs to be installed to activate the lights.

- **Full Fittings or Pendant Lights:** These are fitted over dining tables, billiards table and for spot lighting. The control switch may be a finger tap switch provided at the table.

LIGHTING FOR DIFFERENT AREAS IN HOTELS

Entrance Halls: Entrance halls should look interesting and the lighting should be in keeping with the atmosphere of the place. During the day, an entrance can appear dull and dim if one comes from outside. The light in the hall should be bright enough at the reception desk, on display boards etc. Care should be taken to avoid glare but the light should be sufficient for the guest to be able to read clearly.

Lounge Area: In the lounge area, a chandelier or a general light fitting may be fixed to provide overall light. Cornice lighting may be fixed to reflect on the ceiling, coved lighting may be provided by using wall brackets and other fittings. When there is a false ceiling, the light may come in through the gaps in the ceiling or through glass panels fitted in the ceiling. Lamp fittings here are concealed and only the light is reflected. The atmosphere of the lounge should be comfortable and restful. Localised lights may be used if necessary and portable fittings may be provided. In case of an area attached to a cafeteria, higher degree of illumination may be necessary for quick service.

Restaurants: In restaurants, subdued lighting is generally perfected specially at heights. General lighting is normally used for banquets. Fluorescent lightings may also be used. The effect of lighting on the colour of food should be considered.

Corridors: Subdued lighting may be required in corridors but gloom should be avoided and the guest should be able to see the room number clearly. Placement of light should not be very far from each other. Cornice or ceiling lights are quite appropriate.

Stairs: Stairs should be well lit to prevent accidents. The lights can be set along the wall or just below the handrail. In case of overhead light, fittings should be placed at the end of each flight of stairs.

Bedroom: Bedrooms do not generally require general lighting but adequate lighting should be provided in different parts of the room. The light should not be too bright. A general wall light, a table lamp, bedside lights are the standard light. Lights should be controlled at the door as well as the headboard of the bed to prevent accidents or to have the guest enter into a darkened room. Bedside lights may be mounted on to the wall or fixed as table lamps. They should be placed sufficiently high to enable the guest to read a book. Dressing table light should provide sufficient light to illuminate the face and not the mirror. Pelmet lights can be fixed which illuminates the curtain and giving a soft glow around the window area. The wardrobe built in cupboards should have one light inside to enable guests to see the contents clearly. This light may be fixed to the ceiling of the wardrobe.

Bathroom: In a bathroom, safety is of prime importance. The fittings must be safe with vapour and water proof fittings. All electrical fittings and equipment should have dual switches which can be controlled from outside. Plastic or glass is preferred to metal. An emergency light that operates independently of the main supply should be provided which comes on during power failure. This light should be placed in staircases corridors and exit entrances.

Impact of Lighting on Mood and Atmosphere: The selection of lighting systems, light intensity, its colour and the accessories used influence the mood and atmosphere of the room. Lighting in the bedroom should be warm and relaxing. Yet, it should be bright enough to observe the articles in the room. Light of low wattage and medium wattage is suitable. Using dimmer switches can change the atmosphere and mood. A series of down lighters and wall washers will be suitable to light up the room and prevent glare to the occupants. Subsidiary lighting by the telephone, mirror, coats rack may be necessary. In a restaurant, a relaxing mood can be created by using pelmet lights and pendent lamps above the table. The light should be dim around the people, but with medium wattage over the food.

Passageways should be visible. Candlelight may also be used to create a romantic ambience. Bright pools of light alternating with shadows provide a warm welcome. Lights in office area must provide general light as well as spot lighting on the table. Reading lights should be situated behind the user at the top left hand side.

CHECK YOUR PROGRESS-I

Q1. What is interior decoration?

Q2. What are the elements of interior design?

3.4 EQUIPMENT AND FURNISHINGS

The Dining Experience: Success of a food and beverage service establishment can always be higher if it is able to meet out the customer's demands with a end result of higher guest satisfaction. The needs of the customers which require to be fulfilled for higher guest satisfaction are:

a) ***Physiological:*** it is the exact need of customer like providing special foods such as Jain food, South Indian food, etc. or actually desired food items as per the individual taste.

b) ***Economic:*** it is the need based on the value of money he is investing such as size of the portion, level of service, speed of service, location of the outlet, amongst others.

c) ***Social:*** these are the social needs like going out with friends, business meetings, get together functions and others.

d) ***Psychological:*** these are the customer's mental needs such as self-esteem, fulfilling lifestyle needs, need for variety, etc.

e) ***Convenience:*** these are the needs which arise due to reasons like shopping, employment, cinemas, and other such factors.

A customer would always like to satisfy all or some of the above mentioned needs. As the motive behind eating out varies for each guest, the demand of the customer differs. Therefore, different establishments offer different types of menu and service at different price levels. It becomes imperative for an establishment to recognize the specific reasons of a customer's visit to the outlet. A food and beverage service establishment might have higher guest satisfaction level if it is able to serve the customer at the right time, though it might not be satisfying all needs of the customer. Points beyond the area of operation like location to the customer's requirement like acceptance of credit / debit cards and from the attitude of establishment's staff to the behaviour of other customers visiting the outlet, plays vital role in becoming a customer's preferred choice. These factors affecting the dining experience can be clubbed under various categories as per the following details:

a) ***Menu on offer*** which includes the range, choice, availability, flexibility and quality of items served by the organization.

b) ***Level of service*** which includes the type of service, serving equipment, booking facilities, other facilities like accepting credit cards / debit cards.

c) ***Cleanliness and hygiene*** includes the level of cleanliness and hygiene of the premises, equipment and staff.

d) ***Value of money and pricing*** includes the satisfaction level of the guest against the money he is spending on the food and beverages in the outlet.

e) ***Atmosphere*** includes factors like decor, theme, design, lighting, furnishing, acoustics, etc.

The customers' expectations and an augmented dining experience can be achieved by a food and beverage outlet if the things are worked out in a planned manner. Higher customer satisfactions can always be achieved by giving a customer oriented service by mingling the following characteristics:

a) *Level of service*
b) *Availability of service*
c) *Level of standards*

d) *Reliability of service, and*
e) *Flexibility in service*

3.4.1 Criteria of Selecting and Purchasing Equipment

As we can make it out from the above statements and paragraphs, key to the success of a food and beverage outlet lies with the selection of various types of equipment being utilized in the service. A level down in some area of dining experience can always be made a level up by providing exemplarily good quality equipment. The creation of the atmosphere by the right choice of decor, furnishing and equipment, can always play a positive role in making up the customers' mind. The shape of the outlet, design, colour, furniture, layout, linen, tableware, small equipment and glassware, everything should harmonize with each other to give a balanced experience. Better results can always be obtained by having better equipments as they increase the efficiency of the staff by all means. Selection of equipment is generally determined by considering factors like:

a) *Type of establishment*
b) *Location of the establishment*
c) *Type of clientele*
d) *Type of service*
e) *Availability of funds*

At the same time, we should always consider the following points while purchasing the equipment for any food and beverage service outlet:

3.4.1.1 Clientele

The clientele to be served by the outlet plays a significant role in selecting the equipment to be purchased. The business class or elite class customers would like to have equal emphasis on the interiors, decor and theme as on availability of food and beverage items. Such setups stress upon providing high quality service to its clients by using special equipment like gueridon trolley, etc. thereby increasing the menu price whereas a customer going for a midmarket or a budgeted outlet would be more interested in getting the food at more reasonable and competitive prices rather than going in for quality service.

3.4.1.2 Location

The location of the establishment directly affects the profile of clientele and service styles, which is reflected on the quality of equipment to be purchased. For e.g. a downtown restaurant, mainly serving the office going crowd, would like to go ahead with the melamine plates, stainless steel flatware and glassware, use of paper napkins amongst others so as to make the service quick, fast and reliable with high volume sales.

3.4.1.3 Style of Service

Choice of equipment also depends upon the style of service offered in the restaurant. in case of upmarket segment, the service styles involves the usage of high quality tableware, flatware and chinaware along with the use of special equipment like carving trolley, flambé trolley and other associated tools whereas service style of buffet service will involve usage of other types of equipment but at the same time, it will be able to serve more customers in the same timeframe.

3.4.1.4 Investment

Availability of cash and funds with the promoter influences the choice of selection of equipment. Specialized equipments along with fine quality chinaware, EPNS cutlery, crystal glassware, heavy furniture, fine quality linen and other such equipments will always be a heavy investment in the initial stage of establishment as compared to cheaper options like stainless steel hollowware and melamine tableware.

3.4.1.5 Maintenance Cost

Costs involved in the maintenance of the equipment is another factor to be considered while purchasing because many a time an equipment might look very good and useful in the beginning but might become a spoiler in terms of cost involved in maintenance like cutlery and hollowware of EPNS as it needs to be polished at regular intervals making it more costlier in long run. Or cutlery with more designs and engraving / embossing requires high cost of maintenance.

3.4.1.6 Efficiency and Durability

The equipment to be purchased should be a low cost affair and should be efficient while working. The equipment should be able to meet out the requirements and at the same time should be durable in long run. Ultimately, it should be able to solve the purpose for which it was procured.

3.4.1.7 Replacements

In case of defects, malfunctioning, or breakages, it should be easy for the purchaser to find the replacement without having trouble. The companies and suppliers of repute ensure the availability of products in long run thus making it easier to replace the shortcomings with the equipment of same design and pattern. It will be point of concern, if the product goes out of market and the promoter fails to get the replacements, thus forcing him to invest heavily again.

3.4.1.8 Meal Type

The meal on offer also plays a vital role in selection of equipment as we require different types of equipment for breakfast, lunch and dinner. Also if the establishment is open for all three meals then the cutlery, crockery, glassware and hollowware will have a wider range. Requirements for beverages and snacks will also differ.

3.4.1.9 Menu on Offer

Even if the restaurateur has been able to clearly decide about the meals to be offered in the food and beverage establishments, the equipments will vary depending upon the dishes enlisted in the menu card. We require different types of equipments like thalis and katoris for Indian menu where as we may require chopsticks and forks for Chinese menu or we require knife and fork for continental dishes. Equipments like joint knife and fork or fish knife and fork will not be required for a vegetarian restaurant. Equipment like glass bowls and casseroles will be very much required in a restaurant serving continental preparations for dishes like baked vegetables or salads. Things like cruet sets, sauce boats, entree dishes, dessert knives and forks, etc becomes an essential requirement in case of fine dining restaurant.

3.4.1.10 Shapes, Design and Patterns

Shapes, design and pattern of cutlery, crockery, glassware, hollowware and tableware should be in accordance to the theme, design and decor of the establishment because both the things should go together. The overall effect of the quality and dining in the restaurant will be incomplete if either fails to compliment the other one.

3.4.1.11 Ease of Storage

The equipments to be purchased should be easy to store and should require minimal space for the purpose. The space is one of the major constraints in designing a food and beverage establishment because of its high price and hence, most of the promoters or investors like to use the maximum possible space for guest usage to give high ROI (Return on Investment). So, the equipments should be easy to store and can be of folding or collapsible type with multi level storage facilities.

CHECK YOUR PROGRESS -II

Q.1 Write a note on dining experience.

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Q.2. What criteria you will keep in your mind while selecting equipments?

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Q.3 How clientele will affect equipment purchasing policy?

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3.4.2 Categories of Equipment

The equipments required by a food and beverage service outlet can be divided into the following broad categories:

a) *Glassware*
b) *Crockery*
c) *Tableware (Flatware, Cutlery & Hollowware)*
d) *Furniture*
e) *Disposables*
f) *Linen*

3.4.2.1 Glassware

There are different types of glasses used in any food and beverage service establishment as the outlet offers various types of beverages to its clientele. The design and quality of the glassware actually depicts the quality and level of the restaurant. Normally, the nomenclature of the glassware is more or less done on the basis of drinks served in it. Any establishment catering to the high end customers will use a wide variety of glassware whereas a restaurant serving a normal or limited menu will use limited glassware as the cost of investment and maintenance is very high. Glasses may be divided into three parts i) Bowl, ii) Base and iii) Stem. All glasses will normally have any or all the parts. Further, the glasses may be classified into following three types:

a) **Tumbler** – A bowl without stem with straight or widened sides. e.g. high ball, juice glass.
b) **Footed ware** – Where bowl sits directly on the foot. e.g. brandy balloon, beer goblet.
c) **Stemware** – Glasses with all three parts where stem connects the bowl with foot. e.g. red wine glass, white wine glass, etc.

Purchasing Glassware

Following points must be considered before purchasing glassware:

1) Should be relatively heavy and durable.
2) Should be free from air bubbles and must have fine rim.
3) Should be easy to handle and maintain.
4) Should be easy to replace.
5) Should not have cracks and chips.
6) Should be clear and well polished.
7) In case of cut glasses, the edges should not be very sharp.
8) The base of the glasses should be well designed so that it can hold properly.

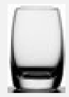
Glasses, Capacities and Their Uses

S.No.	Name of the Glass	Shape	Capacity (in ml)	Description
1	All purpose wine glass		240 - 270	Ideal for drinking both red and white and wines. With not an ideal pairing for either, it can enhance red both reds and whites.
2	Red Balloon		240 - 270	For light bodied red wines with fewer tannins and more subtle flavor, a large bowl and wide mouth allow the wine to breathe, enhancing delicate flavours.
3	Beer Goblet		350	These glasses are used for serving of ales and lagers.

4	Beer Mugs		350	Very large and durable, mugs are ideal for proper serving of Oktoberfest and other dark German lagers.
5	Beer Pilsner		350 - 400	Perfect for serving classic pilsners and other pale lagers, Pilsner glasses showcase a beer’s color, clarity and carbonation. The conical shape helps maintain the beer’s head, while the narrow design allows the aromas to reach your nose.
6	Beer Stout		500 - 550	A large glass used for serving beers. The narrow base helps in easy holding and also allowing the temperature to be maintained. Also the narrow top reduces the loss of effervescence.
7	Beer Tulip Stems		500 - 550	Ideal for presenting lambic and saison, the tulip shape also is very well-suited for specialty fruit beers.
8	Belgian Beer Glass		350 - 400	Belgian Beer glasses allows for subtle warming of the beer via heat transfer from the hand, while the inward tapering top captures aromas, enhancing the tasting experience.
9	Brandy Snifter		250 - 300	A wide bowl creates surface area to help evaporate the liquor and enhance flavor. The narrow top concentrates aromas, and the rounded bottom is ideal for cupping with your hand to warm the brandy.
10	Champagne Flute		200 - 250	A tall, narrow glass maintains flavor concentration and displays effervescence, enhancing presentation.
11	Cider Glass		150 - 175	The bottom ridges allow for a comfortable grip and help release aromas that are concentrated and intensified by the apple shaped bowl for multi sensory tasting.

12	Decanter		1 ltr	These are actually not glasses used for taking drinks but are used for emptying the beverages from bottles. The narrow neck reduces loss of fizz and these elegant looking things can be placed directly on tables instead of putting bottles.
13	Dessert Wine Glass		180 - 200	A smaller glass enables proper portioning of these higher alcohol dessert wines. A rounded bowl directs the wine to the back of the mouth, perfecting the sweetness.
14	Digestif		180 - 200	This type of glass is used to serve digestive wines. The small bowl and long stems makes it easier for holding the digestives at right temperatures.
15	English Pub Glass		350 - 400	Pub glasses offer the perfect presentation of classic ales, such as IPA, pale ale, brown ale or stout. A wide mouth supports the frothy head, Pub glasses offer a traditional yet brilliant beer presentation.
16	Giant Beer Glass		500 - 550	Giant Beer glasses have a tall stature, providing an exceptionally pleasing presentation for wheat ales and pale lagers. Designed for draft beer service, these glasses feature a rounded top that holds a generous head of foam.
17	Highball or Collins		250 - 300.	Thus glass is used to serve cocktails is made with a base spirit and a non-alcoholic carbonated mixer which is served with ice, requiring a tall glass for proper proportioning of ingredients.
18	Iced Tea		250 - 300.	This glass is normally used to serve iced tea. The big bowl allows ice to get properly mixed with other ingredients.

19	Juice		180 - 200	This small glass is used to serve juices and welcome drinks to the guests. Can also be used to serve liqueurs.
20	Liqueur		75 - 90	The small capacity (1-3 oz.) and conical shape is made for serving small amounts of sweet distilled spirits flavored with fruit, herbs, flowers, nuts or spices.
21	Margarita		250 - 300	A Mexican cocktail made from tequila, orange liqueur and lime juice, margaritas are often rimmed with salt. The stem helps prevent warming the drink, and the very wide top enables an optimal salt-to-drink ratio.
22	Martini		250 - 300	A very wide bowl allows for maximum aromatics (especially the juniper and botanicals in a gin martini). The glass can be held by the stem to prevent warming, and the cone shape keeps ingredients from separating.
23	Neat Spirit Glass		180 - 200	A rounded bowl with heavy base is meant for swirling “neat” drinks – unmixed spirits served at room temperature – to open up the flavors. The glass narrows at the top to concentrate and enhance the complex aromas.
24	Old Fashioned Glass		300 - 350	The heavy weight and wide top are perfect for serving the finest spirits on the rocks, the large capacity allowing ample room for ice.
25	Red Wine		240 - 270	For full and medium bodied red wines as these wines have the highest tannins resulting in complex flavours. A tall bowl directs the wine to the back of the palate for a richer tasting experience.

26	Shot		30 - 60	This small glass is used for taking straight shots of drinks like tequila. The glass holds in between 30 – 60 ml of drinks at a time.
27	Tom Collins		350 - 400	This large glass is generally used to serve mixed drinks with lots of ice and fizz. The narrow shape helps in retaining the fizz and gives a beautiful look to the drinks.
28	Water Goblet		270 - 300	This stem glass is used to serve water in high end restaurants giving a more appeal and class in the service style and increases décor of the outlet.
29	White Wine		270 - 300	For light and medium bodied white wines and are perfect for light and delicate wines with less alcohol. A smaller bowl concentrates subtle aromas and directs the wine to the tip of the tongue for better appreciation of sweeter flavours.
30	White Wine (Full Body)		270 - 300	For heavier white wines with a fuller body, a wide bowl enhances complex aromas while directing the wine to the back of the tongue, heightening flavor intensity.

(Table 2.2 – Various types of glassware, sizes and their use)

3.4.2.2 Crockery

Crockery plays in integral role in the final décor of the outlet and it should go well with the design and furnishings of the restaurant. Normally, all the outlets have different types and designs of the crockery so as to suit their own need. Crockery includes all types of earthenware and chinaware used in the restaurants. It can be classified as follows:

a) ***Bone China:*** It is the finest type of crockery which is comparatively quite strong, translucent and most expensive amongst all types of crockery. It is made up of 25% China Clay, 25% China Stone and 50% Calcium Phosphate.
b) ***Earthenware:*** It is the cheapest form of crockery available but lacks durability and chips easily. It is very heavier than bone china and lacks strength. It is made up of 25% Ball Clay, 25% Kaolin or Clay, 15% China Stone and 35% Flint.

c) ***Porcelain:*** This is stronger than other forms of crockery with a high resistance of chipping. It is hard and semi translucent and hence, used in oven to table dishes. It is made up of 50% China Clay, 25% Quartz and 25% Feldspar (aluminosilicate mineral).

d) ***Stoneware:*** It is a natural ceramic material which is fired at high temperatures and generally a hand crafted product. Available in various shapes, designs, bright colours and finishes. High thermal resistance and shock resistance makes it viable for any food and beverage establishment.

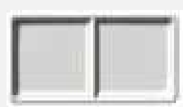
Purchasing Crockery

Following points must be considered while purchasing crockery for a food & beverage establishment:

1) All items should be properly and completely glazed for long life.
2) The pattern should be under glaze so that it does not wear out easily.
3) Crockery should be of multi-purpose use.
4) The design should be suitable for stacking.
5) It should be suitable for dish washing.
6) It should be microwave safe and resistant to higher temperatures.
7) It should be light in weight.
8) The edges should be smooth and rounded to avoid chipping.

Crockery, Sizes and Their Uses

S.No.	Name of the Crockery	Shape	Size	Description
1	Side Bowl		250 ml	Bowls used for portioning and serving dishes from the main portion.
2	Coffee Cup		100 ml	For coffee served after lunch or dinner.
3	Dinner Plate		10"	Also called as Full plate, Large Plate, Joint plate or Meat plate. Used for serving main course.
4	Half Plate		8"	Also called as Fish Plate, Sweet Plate and Dessert Plate. Used for serving fish, meats and vegetable when not served as main course.

5	Pasta Plate		8"	A deep plate used for generally serving pastas and curry preparations.
6	Quarter Plate		6"	Also called as B&B plate, Side plate, Cheese plate and Under plate. Used for serving breads and cheese and also under liner for bowls.
7	Relish Plate		--	A plate with three partitions. It is used to serve savoury condiments or appetizers such as chutney, pickles or olives.
8	Salad Bowl		300 ml	A bowl used for serving salads with dressings.
9	Sauce Bowl		200 ml	A bowl used for serving thin sauces along with main course.
10	Sauce Tray		--	A tray or plate with partition, generally used to serve thick sauces or with preparations where there are more than one sauces.
11	Soup Bowl		250 ml	Meant for serving thick and thin soups but is also utilized for serving breakfast cereals.
12	Soup Cup		250 ml	Also called as consomme cup but is used for serving all kinds of thin soups.
13	Soup Plate		8"	Normally used for serving thick soups and breakfast cereals.
14	Tea Cup		200 ml	For Tea and coffee served during the day but except after lunch and dinner.
15	Vegetable Bowl		400 ml	It is a large bowl used for serving vegetables and other dishes with sauce.

(Table 2.3 – Various types of crockery, sizes and their use)

3.4.2.3 Tableware (Flatware, Cutlery & Hollowware)

Tableware is a broad term which denotes Flatware, Cutlery and Hollowware. Flatware includes all forms of spoons and forks whereas Cutlery denotes all forms of knives and cutting equipments. Hollowware includes all other items which are used on the table during service. Tableware is available in various designs and patterns and is made up of silver, plated silver and stainless steel. The type of metal chosen for the equipment largely depends on the type of menu served and profile of the guests visiting the restaurant. Most of the high end and fine dining restaurants prefer to go for silver of EPNS (Electro Plated Nickel Silver) cutlery where as outlets like coffee shops will go for limited and ordinary stainless steel cutlery. Silver and EPNS cutlery is difficult to maintain as it requires frequent polishing and buffing.

There are three common types of stainless alloy used in flatware

i) **18/10 STAINLESS** - 18/10 refers to 18% chrome and 10% nickel content in the alloy. 18/10 offers superior resistance to rusting and corrosion. Because of its nickel content, it will keep its color and luster longer than other grades of stainless. This is generally the most expensive of the stainless alloy materials.

ii) **18/0 CHROME** - 18/0 refers to 18% chrome and 0% nickel content in the alloy. Although this metal does not have the extra advantage of 18/10 stainless but is good for commercial use. Since this is less expensive than 18/10, price generally has an effect on product selection.

iii) **13/0 CHROME** - 13/0 refers to 13% chrome and 0% nickel content in the alloy. 13/0 is used primarily for one piece knives, in the case of hollow handle knives, the blade only will be 13/0. This alloy is used as it has a higher hardening factor which helps the blade stay sharper longer.

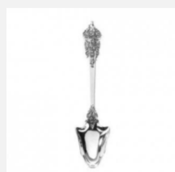
Purchasing Tableware

While selecting tableware, the following points must be considered:

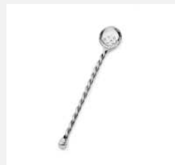
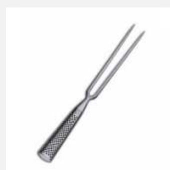
1) Type of establishment.
2) Type of menu offered.
3) Style of service.
4) Average seating capacity and turnover ratio.
5) Wash-up facilities.
6) Price.
7) Durability of the equipment.
8) Maintenance and replacements.

Tableware and Their Uses

Table 2.4 below depicts various types of flatware, their sizes and uses:

S.No.	Name of the Flatware & Cutlery	Shape	Size	Description
1	Baby Spoon		5.5" - 6.0"	Baby Spoons are small-sized spoons. This type of spoon is larger than the Coffee Spoon and Tea Spoon, and is designed for use at breakfast time, for yogurt or any other drinks or foods that require a slightly larger spoon cup. Due to its special shape, this spoon is ideal for use by infants and toddlers.
2	Butter Knife		5.0" - 6.0"	The tip of the blade is rounded and some are slightly wider at the tip.
3	Cheese Spoon		6.5" - 7.0"	Cheese spoons are designed for grated cheese. These spoons go together with cheese graters. The cups of these spoons are finely decorated.
4	Coffee Spoon		4.5" - 5.0"	This is a small spoon designed for stirring Italian-style "Espresso" coffee prepared with a Moka machine, the Neapolitan coffee maker or coffee-shop machine. Its small size serves for small coffee cups and glasses.
5	Cream Spoon		4.5" - 5.0"	Cream spoon has a rounded cup that is perfect for serving sauces or cream onto other food.
6	Dessert Fork		7.0" - 7.5"	Dessert Forks are smaller than Table Forks and even smaller than Fruit Forks. Dessert Forks have three tines and are used for different dessert dishes and sweets.
7	Dessert Knife		8.0" - 8.5"	The dessert knife features a narrow blade and a rounded or pointed tip. The rounded tip is used to section soft desserts, and the tip to cut hard desserts.

8	Dessert Spoon		8.0" - 8.5"	This spoon is specifically designed for having desserts. It has got an oval bowl and is almost double the size of a tea spoon.
9	Dinner Knife		9.0" - 10.0"	The dinner knife is the longest knife in a set of flatware. It is used to cut and push food and is laid on the table at all meals, formal and informal.
10	Fish Fork		7.0" - 8.0"	Fish Forks are designed for dishes based on fish. Together with a fish knife, Fish Forks simplify cleaning of the fish and makes it easier to eat.
11	Fish Knife		8.0" - 9.0"	The fish knife features a wide blade with a dull edge and a tip made with a notched point used to separate the skeleton from the body and lift the bones onto a plate.
12	Fruit Fork		5.5" - 6.0"	Fruit fork are smaller than Table Forks and are designed, together with the Fruit Knife and the Fruit Spoon, for use with fruit dishes and appetizers.
13	Fruit Knife		6.0" - 7.0"	The fruit knife is used to cut and peel fresh fruit at the table in formal and informal dining. The fruit knife features a pointed tip and a narrow blade that is straight or slightly curved.
14	Fruit Spoon		5.5" - 6.0"	These are smaller than Table Spoons and are used together with Fruit Knives and Fruit Forks, for use with fruit dishes and appetizers.
15	Ham Fork		7.0" - 8.0"	Ham Forks have two tines designed for picking up slices of prosciutto and very thinly-sliced deli meats.

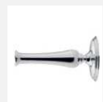
16	Icecream Spoon		6.0" - 6.5"	These spoons have a wide-cup that is typically square in shape for picking up just the right amount of ice cream from the bowl.
17	Olive Spoon		6.0" - 6.5"	Olive spoon is used to serve olives and other appetizers preserved in liquids. The spoon's cup has holes for the liquid to drain through, making it easier to serve the food.
18	Rice Spoon		10.0" - 11.0"	This is a large spoon designed for serving rice dishes and other side dishes at the table. The cup of this spoon is very large and can hold a larger amount of food.
19	Roast Fork		10.0" - 11.0"	Roast Forks are the largest of the many different types of forks. Roast Forks have two points designed for stabbing meat during the carving phase and turning it during cooking.
20	Salad Spoon & Fork		8.5" - 9.0"	Salad spoons goes together with Salad Forks and have an elongated shape that helps with mixing salad or vegetables while dressing and makes it easier to serve.
21	Serving Spoon & Fork		10.0" - 11.0"	Serving spoon goes together with the Serving Fork. The Serving Spoon is bigger than the Table Spoon and is designed for serving different side dishes. The large cup allows it to hold a larger amount of food.
22	Snail Forks		4.5" - 5.0"	Snail Forks are small forks used for aperitifs, for skewering olives, snails, canapes and other tidbits and appetizers.
23	Soup Spoon		7.0" - 7.5"	Soup spoon features a wide cup designed for holding a large amount of the product.

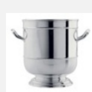
24	Steak Knife		8.0" - 9.0"	Steak Knife has a sharp tip and a serrated edge to cut thick portions of meat. At a formal meal, a steak knife is not provided if meat is served roasted, which is easily cut with a regular dinner knife.
25	Sugar Spoon		5.5" - 6.0"	Sugar spoons have a long, narrow cup with slightly raised edges. This special cup helps for pouring the sugar into small-sized cups without spilling it.
26	Sundae Spoon / Parfait Spoon		9.0" - 10.0"	Sundae spoons are characterized by a very long handle. These spoons are designed for stirring long drinks, cocktails and any drink served in a tall glass. The tapered shape of the spoon allows it to reach the bottom of any glass.
27	Table Fork		8.0" - 8.5"	Table fork are what we use every day for our main dishes. They can be used for pasta, rice dishes, meat or vegetables. These forks are designed for use with a wide variety of different dishes.
28	Table Knife		8.0" - 8.5"	Table knives are what we use every day for our main dishes. They can be used for meat or vegetables. These knives are designed for use with a wide variety of different dishes.
29	Table Spoon		8.0" - 8.5"	These are what we use every day for our main dishes. They can be used for soups and rice dishes. The cup of these spoons are designed for picking up just the right amount of food
30	Tea Spoon		5.0" - 5.5"	These are small-sized spoons. This type of spoon is larger than the Moka Spoon and is designed for stirring tea, American-style or European-style coffee, cappuccinos, herb tea, ginseng coffee and any other drink served in larger-sized coffee cups.
31	Pastry Fork		5.0" - 5.5"	The pastry fork looks similar to a salad fork, but it is narrower and slightly shorter to provide leverage in cutting, the left tine is often notched.

32	Oyster Fork		4.0" - 4.5"	The oyster fork is a small utensil made with three short wide curved tines. The left tine is extra wide to assist in cutting the membrane that connects the oyster to the shell.

(Table 2.4 – Various types of flatware, sizes and their uses)

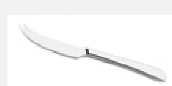
Table 2.5 below depicts various hollow-wares and their uses

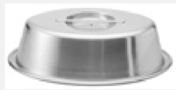
S.No.	Name of the Hollow-ware	Shape	Description
1	Bottle Cooler		To hold ice shavings to keep bottles chilled.
2	Bud vase		To hold flower buds.
3	Butter Dish		To hold butter cubes or curls. The bottom is filled with ice shavings and butter is kept on a plate on top of ice.
4	Cheese Dish		This is used to serve grated cheese to the guest.
5	Coffee Pot		To hold coffee decoction.
6	Creamer		To hold extra cream for hot coffee.
7	Cruet Set		To hold salt and pepper separately. Salt cellar has two to three holes where as pepper cellar has many.
8	Egg Cup		To hold and serve boiled egg.
9	Finger Bowl		To serve lukewarm water along with a piece of lemon on an under liner after the completion of meal to wipe hands.
10	Ice Bucket		To hold ice shavings to keep bottles chilled.

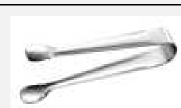
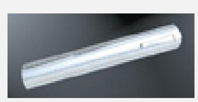
11	Ice cream Cup		To hold and serve ice creams.
12	Milk Pot		To hold milk during the service of tea / coffee.
13	Mustard Pot		It is also a part of cruet and is used hold mustard powder.
14	Oil Vinegar Set		To hold seasoned oil and vinegar.
15	Sauce Boat		To hold sauces going as accompaniments with various main course preparations.
16	Soup Tureen		For holding large quantities of soups.
17	Sugar Bowl		To hold sugar while serving tea / coffee.
18	Tea / Sugar Bags Holder		To hold tea bags / sugar sachets while serving tea / coffee.
19	Tea Pot		To hold tea concentrate while serving tea / coffee.
20	Water Jug		To hold water during the meal period and to serve water in the glass.
21	Wine Cooler		To hold wine bottles on the table.

(Table 2.5 – Various types of hollow-ware, shapes and their uses)

Table 2.6 shows various special equipment which are used in food & beverage service

S.No.	Equipment	Shape & Design	Uses
1	Asparagus Tong		Used for holding and serving asparagus.
2	Bread Knife		Used for cutting breads.
3	Bread Tong		Used for holding slices of breads.
4	Buffet Serving Fork		Used during the service of items in the buffet.
5	Buffet Serving Spoon		Used during the service of items in the buffet.
6	Buffet Tong		Used for holding pieces while serving from buffet.
7	Cake Knife		Used to cut cakes.
8	Cake Scissor		Used to hold cake pieces from down and top.
9	Cake Server		Used for serving cut pieces of cake.
10	Carving Fork		Used for holding large joints of meats.
11	Carving Knife		Used for cutting pieces of meat.
12	Cheese Knife		Used for cutting cheese, has two pointers.
13	Crab Scissor		Used for holding and cutting crabs.

14	Flambe Tong		Used for picking ingredients during flambe.
15	Food Cover		Used for covering various dishes.
16	Gratin Server		Used for serving gratinated preparations.
17	Hard Cheese Knife		Used for cutting hard cheeses.
18	Hors d' oeuvres Scissor		Used for cutting and holding different hors d' oeuvres.
19	Ice Tong		Used for holding ice cubes or ice shavings.
20	Lobster Cracker		To crack claws of lobsters.
21	Lobster Pick		To pick flesh of lobsters.
22	Nuts Cracker		To crack any types of nuts on the table.
23	Parmesan Knife		To cut the parmesan cheese.
24	Pastry Scissor		To hold and cut various pastries.
25	Pastry Tong		TO hold and plate pastries.
26	Salad Scissor		To hold and cut salads.
27	Salad Tong		To hold vegetable salads or salads with large chunks.

28	Sauce Ladle		To pour sauces from the boats.
29	Serving Scissor Tong		To cut and serve pieces of main course dishes.
30	Serving Tong		To hold and serve pieces of main course.
31	Snail Tong		To pick and hold snails.
32	Snail Dish		Round dish with few indentations to hold snails.
33	Soft Cheese Knife		To cut varieties of soft cheeses.
34	Soup Ladle		To pick and pour soup from Soup Tureens.
35	Spaghetti Server		To plate and serve spaghetti.
36	Spaghetti Tong		To hold and serve spaghetti from platter to plate.
37	Sugar Tong		To hold sugar cubes.
38	Table Crumbler		To clear the food crumbs from the table.
39	Toast Tong		To hold the toast slices.
40	Tong Server		Common tong which can be used to serve anything on table.
41	Vegetable Tong		Tong to hold pieces of vegetables.

CHECK YOUR PROGRESS -III

Q.1 What points you will keep in mind while purchasing crockery?

Q.2. What points you will keep in mind while purchasing glassware?

Q.3 What points you will keep in mind while purchasing cutlery?

3.4.3 Furniture

Furniture is one of the most important equipments of any food & beverage service establishment. It helps in building up the décor of the restaurant and by using different material, designs and finishes of furniture and by their artistically done arrangement, the atmosphere and appearance of the service area can be changed in accordance to various themes and occasions. A wide variety of woods and grains are available in the market which gives a variety in opting for the best suitable colour and texture of the wood. As working purely with wood restricts the options of designs, more use of different metals like aluminum, brass and stainless steel has come into the practice which gives more options in designing and flexibility in changing the ambience & décor.

PURCHASING FURNITURE

Following points must be considered while purchasing furniture for any food and beverage service establishment:

1) Capital available with the promoters.
2) Type of establishment.
3) Type of menu offered.
4) Design of the outlet.
5) Flexibility of use.
6) Décor of the outlet.
7) Ease of maintenance.
8) Stackability.

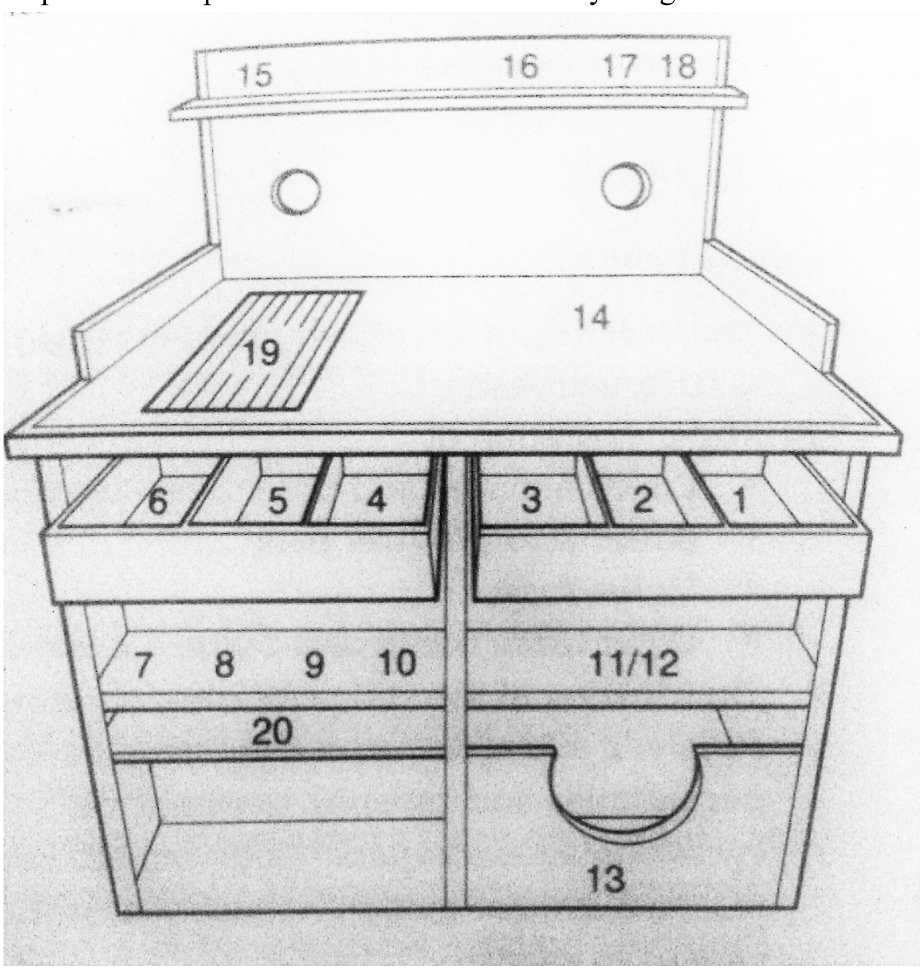
TYPES OF FURNITURE AND ITS USES

All the F&B outlets are essentially equipped with the following types of furniture, which are used to ease out and help out in their day to day operations:

1. **Tables:** The size and shape of tables depends entirely on the availability of space and the kind of service envisaged. Normally three types of tables are used. They are round, rectangular and square. The height of the table irrespective of the shape should be 75cm from the floor level. The diameter of a round table to seat four people should be approximately 92 cm. The size of a square table to seat two people should 76 cm sq and 92 cm square to seat four people. The size of rectangular table to seat four people should be 137 cm x 76 cm. Commercial table tops come in a variety of materials: wood, metal, stone, tile and melamine. Many restaurant table tops are available with edged finishes to prevent scuffs and dents. In some expensive tables, another table top is placed with revolving facility, on top of which the food is placed where the guests can rotate revolving top and serve himself, if he chooses to.

2. **Chairs:** Chairs are available in various shapes, colours and sizes to suit all occasions. Because of the wide ranges of style, chairs come in varied height and width. However the dimension of chairs should be relative to table dimensions. The average height of the chair, should be 92 cm. The seat should be 46 cm from the floor and 23 cm from the top of the table. This would enable guests to sit and eat comfortably, without their legs touching the underside of the table.

3. **Side station / dummy waiter:** The side station is also called the dummy waiter or service console. This is a very important piece of furniture in a restaurant. It is used by the service staff for keeping all the service equipment at one place. It is also used as a landing table for the dishes picked up from the kitchen enroute to the table and the dirty dishes from the guest's table to the wash-up area. For the convenience of the service staff, the side station should be strategically located in a restaurant. The side station should be kept clean and presentable as it can be seen by the guests.



(Figure 2.7 – Diagrammatic representation of a Side Board)

The service equipment which can be stored in a side station are:

1.	Service spoon and fork,	2.	Sweet spoon and forks
3.	Soup spoon, tea spoon, coffee spoons	4.	Fish knife and forks

5. Joint knives
6. Side knives
7. Fish plate
8. Sweet plate
9. Side plate
10. Coffee saucer
11. Under plates
12. Service salver
13. Dirty linen
14. Check pad on service plate
15. Assorted condiments
16. Ashtrays
17. Water jugs
18. Bread basket and butter
19. Hotplate
20. Trays

The style and design of the side board varies from establishment to establishment. It depends upon:

a. The style of service and menu offered.
b. The number of waiters working from one sideboard
c. The number of tables to be served from one sideboard
d. The amount of equipment it is expected to hold.

4. Trolleys: The various trolleys used in the food and beverage service outlets are:

1. **Gueridon or Flambe Trolley:** A gueridon or flambe trolley is a small mobile trolley that can be placed alongside the guest's table. It consists of one or two burners, a gas cylinder and a work and storage space for plates and cooking equipment. Using this trolley, the food is flambed at the guest's table. Only skilled and well trained waiters are allowed to handle this service as there is the risk of spoiling food by overcooking it, and of the flame causing a fire in the premises.

2. **Room Service Trolley:** This trolley is known for its versatility. It is used for the service to guests in their rooms. The waiter sets up the meal and covers on the trolley and wheels it into the guest's room. This trolley may also be used as a dining table in the privacy of the guest's room. Beneath the trolley top, provision is made for mounting a hot case to keep the food warm.

3. **Dessert Trolley:** This trolley serves as a visual aid to selling desserts. Guests are more likely to order a dessert if they can see what is available, particularly if it is well presented. Some dessert trolleys are refrigerated. Gateaux, pastries, jellies, tarts, pies, flans and souffles can be served from a dessert trolley. This trolley has several shelves and the bottom shelf is reserved for plates, cutlery, linen and other service equipment. A glass or transparent trolley top makes it easy for guests to select a dessert of their choice.

4. **Hors d'oeuvre Trolley:** A hors d'oeuvre is the first course of a menu usually consisting of a selection of small items of egg, fish, meat, fruit and vegetables in pungent dressings. This hors d'oeuvre trolley is used to carry variety of appetizers. This trolley is probably the least popular in India, as a majority of guests are not too keen on hors d'oeuvre as a starter. They prefer soups instead. However, this trolley can be used to popularize the special dishes that are introduced in the restaurant from time to time.

5. **Carving Trolley:** It is used for carving joints of meat at a guest's table. The steward takes the trolley to the guest table and carves out the meat as per his / her choice.

3.4.4 Disposables

Nowadays, disposables are extensively used in all operational areas of food and beverage industry. Use of throwaways has seen an exponential growth over the last decade and this is mainly to reduce the operational costs and the difficulty in arranging labour for wash-ups or the high cost involved in laundering of reusables. Use of disposable also helps in improving the standards of hygiene and minimizes the cost of breakages. This mechanism reduces the requirement of area for storage which becomes a highly beneficial factor in transport catering, fast foods and takeaways. To top it all, there is huge acceptability of disposables amongst the consumers because of hygienic standards, attractiveness and presentability.

TYPES OF DISPOSABLES

On the basis of their usage, disposables can be classified into the following categories:

1) Disposable crockery and tableware e.g. plates, knife, spoons, etc.
2) Disposable storage and cookware e.g. containers, etc.
3) Décor – napkins, tablecloths, slip cloths, placemats, banquet rolls, etc.
4) Disposable clothing e.g. gloves, chef caps, aprons, etc.
5) Disposable wipes, napkins, etc.
6) Disposable packaging containers, etc.

ADVANTAGES OF DISPOSABLES

1) Cheaper than hiring regular equipment and hence cost effective.
2) Disposable are more hygienic.
3) Disposable speeds up the service.
4) Good thermal resistance and insulators.
5) Reduces capital investment.
6) Easy to transport and use.
7) It saves on the labour for washing thus reducing cost.

DISADVANTAGES OF DISPOSABLES

1) Regular backup to be maintained.
2) Sometimes the costs go high as compared to conventional equipment.
3) All customers do not like to have food in disposables.
4) Many of the products are non Ecofriendly, thereby reducing acceptability.

3.4.5 Linen

Linens are fabric goods, such as tablecloths, napkins and slip cloths. Linen is a material made from the fibres of the flax plant. Originally, many, such as bed sheets and tablecloths, were made of linen. Today, the term "linen" has come to be applied to all related products even though most are made of cotton, various synthetic materials, or blends. The main items of linen normally found in a restaurant are: tablecloths; slip cloths; buffet cloths; trolley and sideboard cloths; and waiter's cloths or service cloths.

PURCHASING LINEN

Following points must be considered while purchasing linen for a food & beverage service establishment:

1) Type of establishment.
2) Type of menu offered.
3) Style of service.
4) Average seating capacity and turnover ratio.
5) Wash-up facilities.
6) Price of the fabric.
7) Durability of the fabric.
8) Maintenance and replacements.

TYPE OF LINEN AND ITS USES

Table Cloths: Table linens made from cotton or linen are not only more absorbent but also last longer. The fibres don't pill or pile as easy as with synthetic table linens and they don't become shiny when exposed to an iron's heat. Egyptian cotton and Irish linen are considered the finest materials for table linens because of their long, durable fibers. White is the most popular colour for table linens because it's considered formal. Table linens in off white or ivory are also acceptable. A damask (woven) or embroidered pattern is a perfectly acceptable table cloth.

Sizes of tables and table Cloths

i)	Square table	76 cm sq	92 cm sq	137 cm sq	183 cm sq
ii)	Rectangular table	136 x 76 cm	183 x 137 cm		
iii)	Round table	92 cm diameter	184 cm diameter		

Table cloths should be large enough to cover the top as well as a portion of the legs of a table without interfering with the guest's comfort while he is seated at the table. The size of the tablecloth varies according to the size of the table it is required to cover.

Slip Cloths or Napron: These are designed to be laid over the tablecloth to protect it from spillage and give it a longer life. Using a slip cloth reduces the number of tablecloths used and thus reduces the cost of inventory and laundry. Slip cloths may measure 1 metre square approximately.

Napkins or Serviettes: A napkin or serviette is a rectangle cloth or paper used at the table for wiping the mouth while eating. It is usually small and folded. Conventionally, t he napkin is folded and placed to the left of the place setting, outside the outermost fork. In an ambitious restaurant setting, it may be folded into elaborate shapes and displayed on the empty plate. A napkin may also be held together in a bundle (with cutlery) by a napkin ring. Alternatively, paper napkins may be contained with a napkin holder. Napkins may be of the same colour as tablecloths, or in a colour that blends with the decor of the restaurant. Napkins should be spotlessly clean and well-pressed. The ideal size for a napkin is between 46 to 50 cm^2.

Buffet Cloths : For a buffet table, the minimum size of the tablecloth required is 2 m x 4 m.

Trolley Cloths and Sideboard Cloths: These are usually made from tablecloths well worn and not suitable for use on tables, mended by the housekeeping department and folded to fit a sideboard or trolley.

Waiter's Cloths or Service Cloths: A service cloth is a very important part of service equipment as well as being part of the food server's uniform. It must be kept clean and ironed at all times and only used as a service cloth for certain activities such as:

i) Carrying hot plates
ii) Final polishing of plates
iii) Wiping small spills
iv) Brushing crumbs onto a service plate
v) Wiping the undersides of the plates before placing plates on the table
vi) Service cloths are also used by every waiter as protection against heat and to keep uniforms clean.

3.4.6 Handling, Care and Maintenance Of Equipment

The handling and care about equipments is discussed in following sub sections:

a) Glassware

b) Crockery
c) Flatware

Glassware

i. Keep adequate supplies of glassware in order to prevent recently washed items from going directly into service.
ii. Place guides on scrap tables for busboys to place glass, china, and flatware in separate areas.
iii. Check dishwasher temperature twice daily.
iv. Replace worn glass washer brushes.
v. Instruct busboys to **BE QUIET.** No one wants to eat in a noisy place. This will cut down on breakage of glassware, as well as help create a pleasant, quiet atmosphere.
vi. Never put cold water or ice into a warm or hot glass.
vii. Bus glassware directly into racks, or use divided bus trays.
viii. Color code racks for different glass, china, and flatware items.
ix. Remove abraded, cracked or chipped glass from service.
x. Never pick up glasses in bouquets.
xi. Never scoop ice with glasses.
xii. Never stack glasses.
xiii. Always pre-heat glasses before pouring hot drinks.
xiv. Always have an adequate backup for rush periods.
xv. Avoid head to head contact of glasses anywhere.
xvi. Never put flatware into glasses.

Crockery

i. Keep adequate supplies of china to prevent recently washed items from going directly into service.
ii. Place guides on scrap table for busboys to place glass, china, and flatware in separate areas.
iii. Check dishwasher temperature twice daily.
iv. Replace worn rubber and plastic china scrapers.
v. Instruct busboys to BE QUIET. No one wants to eat in a noisy place. This will cut down on breakage of china, as well as help create a pleasant, quiet atmosphere.
vi. Never put cold water or ice into a warm or hot cup or mug.
vii. Bus china directly into racks, or use divided bus trays with flatware baskets.
viii. Color code racks for different glass, china, and flatware items.
ix. Remove abraded, cracked or chipped china from service.
x. Never stack crockery more than 16 inches..
xi. Always carry dishes carefully.

xii. Never carry more dishes than you can handle.
xiii. Always make sure that you have adequate crockery to handle during rush hours.
xiv. Never use abrasive pads or other dishes to remove scraps.

Flatware

i. Keep adequate supplies of flatware for rush periods.
ii. Place guides on scrap tables for busboys to place glass, china, and flatware in separate areas.
iii. Instruct busboys to BE QUIET. No one wants to eat in a noisy place. This will cut down on damage to flatware, as well as help create a pleasant, quiet atmosphere.
iv. Never put flatware into glasses or cups.
v. Bus flatware directly into racks, or use divided bus trays with flatware baskets.
vi. Never allow flatware to remain soiled overnight.
vii. Presoak, thoroughly wash, and dry flatware immediately after washing.
viii. Check dishwasher temperature twice daily, and use only high temperatures.
ix. Color code racks for different glass, china, and flatware items.
x. Remove corroded flatware from service.
xi. Never load flatware aluminum, copper or copper alloy containers for presoaking, instead always use plastic or stainless steel.
xii. Always store flatware in a dry area away from cooking fumes and corrosive materials.

CHECK YOUR PROGRESS -IV

Q.1 Write a note on handling, care and maintenance of crockery?

Q.2. Write a note on handling, care and maintenance of flatware?

Q.3 Write a note on handling, care and maintenance of glassware?

3.5 ENVIRONMENTAL MANAGEMENT

Much attention has been focused on ways to cut energy costs. Foodservice operators have found that targeting unnecessary energy usage and incorporating techniques to reduce energy consumption result in a more efficient operation overall. Water conservation has received less attention. However, as more and more communities suffer from periodic water shortages, this precious resource will become the focus of more effort.

Green design is the use of "sustainable" principles that minimize the use of nonrenewable resources and seek to prevent air, water, and ground contamination and other activities that degrade the environment. These standards are known as the LEED (Leadership in Energy and Environmental Design) Green Building Rating System. The aerial view of the Ordway building at the Woods Hole Research Center shows the two-part array of 88 photovoltaic panels that generate 34 percent of the building's total energy requirement. In addition, the building uses less total energy, has lower energy costs, and generates 28 percent fewer emissions due to operations.

The goals in a green foodservice design project most likely would be as follows:

- Reduce or eliminate the negative impact of the building on local ecosystems
- Develop a sustainable site plan
- Safeguard water supplies and ensure water-use efficiencies
- Determine optimum facility and equipment energy efficiency
- Make use of recyclable and recycled materials in construction and operations
- Preserve indoor environmental quality after the facility opens

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CHECK YOUR PROGRESS -V

Q.1 Write a note on environmental management.

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3.6 SUMMARY

Success of any food and beverage outlet depends upon various factors like décor, but the equipment used in these establishments plays the final role. The equipment to be used in any outlet can primarily be decided on the clientele it serves and the menu it offers to its clients. There is different equipment to handle various types of food and beverage preparations but most of the outlets prefers to go for equipments which can play a multiple role as it saves on the money as well as the storage space. Selecting and purchasing equipment is one of the most difficult task or restaurant operations as it involves many critical decisions based on the capital investment and will affect the Return on Investment. Equipment purchased must be maintained and handled properly or else high breakages will not allow the organization to retain the standards involved in the operations over a period of time. Proper handling and storage facility can reduce the breakages thereby saving on the biggest expenses involved in restaurant operations.

3.7 GLOSSARY

Baize: It is a thick woollen material which is used to cover the wooden table tops to reduce noise and to hold the tableware at its place.

Cutlery: It consists of all forms of knives and other cutting equipment used in dining.

Flatware: It consists of all forms of spoons and forks.

Gangway: It is the free space available between the chairs and the tables which allows the people to move freely.

Glassware: It consists of all types of glasses used in a food and beverage service establishment.

Hollowware: It consists of all types of tableware other than cutlery used in a food and beverage service establishment.

Linen: It consists of table cloths, napkins, tray cloths, slip cloths, buffet cloths, waiter’s cloths and tea cloths used in a food and beverage service establishment.

Main Course: It is the main dish of the menu.

Mirror Platter: It is the platter with a mirror finish a base and is normally used for enhanced presentations of salads and cold meats.

Placemat: It is a type of mat made up of paper of plastic and is used on tables with a top made of glass, wood, mica or other such finishes which are not covered with a baize cloth.

Preserves: Jam, Jelly and Marmalade. Sometimes honey also.

Serviette: It is a type of cloth which is used by the stewards during service.

Silverware: A term used for cutlery made up of silver or plated silver.

Tableware: A term used for all pieces of flatware, cutlery and hollowware.

3.8 REFERENCES/BIBLIOGRAPHY

- Lilicrap, D. and Cousins, J.; Food and Beverage Service; Eighth Edition, Hodder Education, London, 2010.
- Davis, B., Lockwood, A. and Stone, S.; Food and Beverage Management; Third Edition, Elsevier, New Delhi, 2008.
- Bhatnagar, S., K.; Managing Food & Beverage Operations, First Edition, Frank Brothers & Co., New Delhi, 2009.
- Bagchi, S., N. and Sharma, A.; Text Book of Food & Beverage Service, Third Edition, Aman Publications, New Delhi, 2012.

3.9 SUGGESTED READINGS

- Singaravelavan, R.; Food and Beverage Service, First Edition, Oxford University Press, New Delhi, 2012.
- Dhawan, V.; Food & Beverage Service; Second Edition, Frank Brothers & Co., New Delhi, 2009.
- Axler, B., H. and Litrides, C., A,; Food & Beverage Service; Wiley, 1990.
- George, B.; Food & Beverage Service and Management; First Edition, Jaico Publications, New Delhi, 2008.
- Bamunuge, H.; Food & Beverage Service; First Edition, Pearson Oxford Heinemann, 2010.

3.10 TERMINAL QUESTIONS

1. What is ‘Dummy Waiter’? Explain its importance with the help of a diagrammatic representation.
2. What do you understand by the term ‘Crockery’? Write various types and features of the types available in the market.
3. Write the points to be considered while purchasing cutlery for a restaurant.
4. Write the recommended sizes and use of at least 10 different types of glassware.
5. Name and write down the uses of at least 10 different special equipments.
6. Write down the care and maintenance involved in various types of F&B equipment.
7. Define the following terms;
    a. Hue
    b. Tint
    c. Value
    d. Shade
    e. Colour schemes
8. What are the dimensions of colors?

9. Discuss the Prang's colour system with the help of colour wheel.
10. Classify the different types of colour schemes and discuss each category in detail.

UNIT: 04
THE MANAGEMENT FUNCTIONS

Structure

4.1 Introduction
4.2 Objectives
4.3 Organizational Design
4.3.1 Organizing Process
4.3.2 Importance of Organizing Function
4.3.3 Principles of Organizing
4.3.4 Organizational Structure
4.3.5 Benefits of a good organizational structure
4.3.6 Types of organizational structure
4.3.7 Departmentalization
4.4 Leadership
4.4.1 Traits of effective Leaders
4.4.2 Leadership Skills
4.4.3 Theories of leadership
4.4.4 Leadership Styles
4.5 Human Resource Management
4.6 Performance Improvement
4.7 Financial Management
4.8 Marketing
4.9 Summary
4.10 Glossary
4.11 References/Bibliography
4.12 Suggested Readings
4.13 Terminal Questions

4.1 INTRODUCTION

The concept of management has acquired special significance in the present competitive and complex business world. Efficient and purposeful management is absolutely essential for the survival of a business unit. Management concept is comprehensive and covers all aspects of business. In simple words, management means utilising available resources in the best possible manner and also for achieving well defined objectives. It is a distinct and dynamic process involving use of different resources for achieving well defined objectives. The resources are: men, money, materials, machines, methods and markets. These are the six basic inputs in management process (six M's of management) and the output is in the form of achievement of objectives. It is the end result of inputs and is available through efficient management process.

Management is the act of getting people together to accomplish desired goals and objectives using available resources efficiently and effectively. Management comprises planning, organizing, staffing, leading, coordinating and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. Resourcing encompasses the development and manipulation of human resources, financial resources, technological resources and natural resources.

Since organizations can be viewed as systems, management can also be defined as human action, including design, to facilitate the production of useful outcomes from a system. This view opens the opportunity to 'manage' oneself, a pre-requisite to attempting to manage others.

The term 'management' is used extensively in business. It is the core or life giving element in business. We expect that a business unit should be managed efficiently. This is precisely what is done in management. Management is essential for the conduct of business activity in an orderly manner. It is a vital function concerned with all aspects of working of an enterprise.

Financial management is that managerial activity which is concerned with the planning and controlling of the firm’s financial resources. As a separate activity or discipline it is of recent origin. It was a branch of economics till 1890. Financial management, as an academic discipline, has undergone fundamental changes as regards its scope and coverage. In the early years of its evolution, it was considered synonymously with the raising of funds. But in the current literature, in addition to procurement of funds, efficient use of resources and proper management of earnings are universally recognised. In other words financial management can be defined as a managerial function of taking investment, financing a dividend policy decisions.

4.2 OBJECTIVES

After learning this unit the learner will be able :

- To understand the concept of management
- To understand the need and importance of management functions
- To understand the concept of management process and its development
- To understand the management of the future
- Explain the meaning and importance of organising.
- Understand the characteristics of different organisation structures.

- Examine the advantages and disadvantages of different types of organisation structures.
- Understand the concept of departmentalisation.
- All managers are business leaders and they must exhibit leadership qualities in additional to managerial expertise
- Traits of effective leaders
- Leadership Skills
- Theories of leadership
- Leadership styles

4.3 ORGANIZATIONAL DESIGN

Organising means 'identifying and grouping different activities in the organization and bringing together the physical and financial and human resources to establish the most productive relations for the achievement of organizational goals'.

Organizing is the function of management which follows planning. It is a function in which the synchronization and combination of human, physical and financial resources takes place. All the three resources are important to get results. Therefore, organizational function helps in achievement of results which in fact is important for the functioning of a concern.

According to *Chester Barnard*, "Organizing is a function by which the concern is able to define the role positions, the jobs related and the coordination between authority and responsibility. Hence, a manager always has to organize in order to get results.
A manager performs organizing function with the help of following steps:

1. Identification of activities - All the activities which have to be performed in a concern have to be identified first. For example, preparation of accounts, making sales, record keeping, quality control, inventory control, etc. All these activities have to be grouped and classified into units.
2. Departmentally organizing the activities - In this step, the manager tries to combine and group similar and related activities into units or departments. This organization of dividing the whole concern into independent units and departments is called departmentalization.
3. Classifying the authority - Once the departments are made, the manager likes to classify the powers and its extent to the managers. This activity of giving a rank in order to the managerial positions is called hierarchy. The top management is into formulation of policies, the middle level management into departmental supervision and lower level management into supervision of foremen. The clarification of authority helps in

bringing efficiency in the running of a concern. This helps in achieving efficiency in the running of a concern. This helps in avoiding wastage of time, money, effort, in avoidance of duplication or overlapping of efforts and this helps in bringing smoothness in a concern's working.

4. Coordination between authority and responsibility - Relationships are established among various groups to enable smooth interaction toward the achievement of the organizational goal. Each individual is made aware of his authority and he/she knows whom they have to take orders from and to whom they are accountable and to whom they have to report. A clear organizational structure is drawn and all the employees are made aware of it.

4.31 Organizing Process

1. **Identification and division of work**: The organizing function begins with division of work into smaller units. Each such unit is called a job. One individual is assigned only one job according to his capabilities and qualification. This leads to systematic working and specialization.

2. **Departmentalization**: Once the work is divided into smaller manageable units, related jobs are grouped together and put under one department. This grouping process is called departmentalization. The most common ways of departmentalization are functional departmentalization and divisional departmentalization.

3. **Assignment of duties**: once departments are formed, each department is put under the charge of an individual. The work must be assigned to those who are best suited for it.

4. **Establishing reporting relationships:** After assigning the duties, all individuals must also be assigned matching authority. This assignment of authority and responsibility results in the creation of authority responsibility relationship between superior and subordinate. With this, a managerial hierarchy is created (chain of command) where everyone knows who he has to take orders from and to whom he is accountable.

4.3.2 Importance of Organizing Function

1. Coordination: Organization is a means of creating co- ordination among different departments of the enterprise. It creates clear cut relationships among positions and ensures mutual co- operation among individuals. Harmony of work is brought by higher level managers exercising their authority over interconnected activities of lower level manager.

Authority responsibility relationships can be fruitful only when there is a formal relationship between the two. For smooth running of an organization, the co- ordination between authority- responsibilities is very important. There should be co- ordination between different relationships.

Clarity should be made for having an ultimate responsibility attached to every authority. There is a saying, "Authority without responsibility leads to ineffective behaviour and responsibility without authority makes person ineffective." Therefore, co- ordination of authority- responsibility is very important.

2. Effective administration: The organization structure is helpful in defining the jobs positions. The roles to be performed by different managers are clarified. Specialization is achieved through division of work. This all leads to efficient and effective administration.

3. Expansion and growth: With optimum utilization of resources, proper division of work and departmentalization, companies can easily meet the challenges and can expand their activities in a planned manner. They can easily add more job positions, departments, and even diversify their product lines. New geographical areas can also be added to increase sales and profits.

A company's growth is totally dependent on how efficiently and smoothly a concern works. Efficiency can be brought about by clarifying the role positions to the managers, co-ordination between authority and responsibility and concentrating on specialization. In addition to this, a company can diversify if its potential grows. This is possible only when the organization structure is well- defined. This is possible through a set of formal structure.

4. Sense of security: Organizational structure clarifies the job positions. The roles assigned to every manager are clear. Co- ordination is possible. Therefore, clarity of powers helps automatically in increasing mental satisfaction and thereby a sense of security in a concern. This is very important for job- satisfaction.

5. Scope for new changes: Where the roles and activities to be performed are clear and every person gets independence in his working, this provides enough space to a manager to develop his talents and flourish his knowledge. A manager gets ready for taking independent decisions which can be a road or path to adoption of new techniques of production. This scope for bringing new changes into the running of an enterprise is possible only through a set of organizational structure.

6. Clarity in working relationships: Organising function clearly defines the authority or power enjoyed by every individual. Everyone knows very clearly to whom he can give orders and from whom he has to receive orders. This also helps in the creation of managerial hierarchy.

7. Optimum utilization of resources: Organising helps in proper usage of men, material and money. Jobs are properly assigned, so there is no confusion or duplication. This helps in minimizing the wastage of resources.

8. Adaptation to change: Organising function helps in the creation of different departments and managerial hierarchy. This structure helps in adapting and adjusting to the activities in response to the changes in the external environment.

9. Effective administration: Organizing function provides a clear description of jobs, there is no confusion and duplication. Every individual knows his role and position very clearly. Thus, management becomes easy and this brings effectiveness in administration.

10. Development of Personnel: through organizing structure, mangers reduce their workload by assigning their routine jobs to their subordinates. This allows the manager to develop new methods and ways to perform the job. This also gives them the opportunity and time to innovate and thus help in strengthening the company's competitive position. Such delegation also develops the subordinate by giving them the ability to handle challenges and to realize their full potential.

4.3.3 Principles of Organizing

The organizing process can be done efficiently if the managers have certain guidelines so that they can take decisions and can act. To organize in an effective manner, the following principles of organization can be used by a manager.

1. **Principle of Specialization:** According to the principle, the whole work of a concern should be divided amongst the subordinates on the basis of qualifications, abilities and skills. It is through division of work specialization can be achieved which results in effective organization.

2. **Principle of Functional Definition:** According to this principle, all the functions in a concern should be completely and clearly defined to the managers and subordinates. This can be done by clearly defining the duties, responsibilities, authority and relationships of people towards each other. Clarifications in authority- responsibility relationships help in achieving co- ordination and thereby organization can take place effectively. For example, the primary functions of

production, marketing and finance and the authority responsibility relationships in these departments should be clearly defined to every person attached to that department. Clarification in the authority-responsibility relationship helps in efficient organization.

3. **Principles of Span of Control / Supervision:** According to this principle, span of control is a span of supervision which depicts the number of employees that can be handled and controlled effectively by a single manager. According to this principle, a manager should be able to handle what number of employees under him should be decided. This decision can be taken by choosing either from a wide or narrow span. There are two types of span of control:-

a. **Wide span of control-** It is one in which a manager can supervise and control effectively a large group of persons at one time. The features of this span are:-

i. Less overhead cost of supervision
ii. Prompt response from the employees
iii. Better communication
iv. Better supervision
v. Better co-ordination
vi. Suitable for repetitive jobs

According to this span, one manager can effectively and efficiently handle a large number of subordinates at one time.

b. **Narrow span of control-** According to this span, the work and authority is divided amongst many subordinates and a manager doesn't supervises and control a very big group of people under him. The manager according to a narrow span supervises a selected number of employees at one time. The features are:-

i. Work which requires tight control and supervision, for example, handicrafts, ivory work, etc. which requires craftsmanship, there narrow span is more helpful.
ii. Co-ordination is difficult to be achieved.
iii. Communication gaps can come.
iv. Messages can be distorted.
v. Specialization work can be achieved.

Factors influencing Span of Control

- **Managerial abilities-** In the concerns where managers are capable, qualified and experienced, wide span of control is always helpful.

- **Competence of subordinates-** Where the subordinates are capable and competent and their understanding levels are proper, the subordinates tend to very frequently visit the superiors for solving their problems. In such cases, the manager can handle large number of employees. Hence wide span is suitable.

- **Nature of work-** If the work is of repetitive nature, wide span of supervision is more helpful. On the other hand, if work requires mental skill or craftsmanship, tight control and supervision is required in which narrow span is more helpful.

- **Delegation of authority-** When the work is delegated to lower levels in an efficient and proper way, confusions are less and congeniality of the environment can be maintained. In such cases, wide span of control is suitable and the supervisors can manage and control large number of sub- ordinates at one time.

- **Degree of decentralization-** Decentralization is done in order to achieve specialization in which authority is shared by many people and managers at different levels. In such cases, a tall structure is helpful. There are certain concerns where decentralization is done in very effective way which results in direct and personal communication between superiors and sub- ordinates and there the superiors can manage large number of subordinates very easily. In such cases, wide span again helps.

c. **Principle of Scalar Chain:** Scalar chain is a chain of command or authority which flows from top to bottom. With a chain of authority available, wastages of resources are minimized, communication is affected, overlapping of work is avoided and easy organization takes place. A scalar chain of command facilitates work flow in an organization which helps in achievement of effective results. As the authority flows from top to bottom, it clarifies the authority positions to managers at all level and that facilitates effective organization.

4. Principle of Unity of Command: It implies one subordinate-one superior relationship. Every subordinate is answerable and accountable to one boss at one time. This helps in avoiding communication gaps and feedback and response is prompt. Unity of command also helps in effective combination of resources, that is, physical, financial resources which helps in easy co- ordination and, therefore, effective organization.

4.3.4 Organizational Structure

An *organizational structure* is defined as 'Network of job positions, responsibilities and authority at different levels'.

Organizational structure refers to the way that an organization arranges people and jobs so that its work can be performed and its goals can be met. When a work group is very small and face-to-face communication is frequent, formal structure may be unnecessary, but in a larger organization decisions have to be made about the delegation of various tasks. Thus, procedures are established that assign responsibilities for various functions. It is these decisions that determine the organizational structure.

An organisation structure specifies the various job tasks and shows how the same are formally divided, grouped, and coordinated. It provides an appropriate framework for authority relationship. It indicates the hierarchy of authority and the reporting relationships. It is a means to help the management to achieve the organisational objectives.

An organizational structure consists of activities such as task allocation, coordination and supervision, which are directed towards the achievement of organizational aims. It can also be considered as the viewing glass or perspective through which individuals see their organization and its environment. Organising structure is the outcome of organizing process. Whenever an organization grows in size and complexity, an adequate structure is needed. Structure clearly defines the job positions, authority, and responsibilities of different employees.

An organization can be structured in many different ways, depending on their objectives. The structure of an organization will determine the modes in which it operates and performs.

Organizational structure allows the expressed allocation of responsibilities for different functions and processes to different entities such as the branch, department, workgroup and individual. Organizational structure affects organizational action in two big ways. First, it provides the foundation on which standard operating procedures and routines rest. Second, it determines which individuals get to participate in which decision-making processes, and thus to what extent their views shape the organization’s actions.

Peter Drucker clearly says, ‘An organizational structure is an indispensable means; and the wrong structure will seriously impair business performance and even destroy it.’

As the objectives of the organisation are derived from the overall strategy of the organisation, it is logical that an organisation structure is closely linked to its strategy. As such, if the management makes a significant change in the organisation’s strategy, the organisation’s structure needs to be modified to accommodate and support the change. There is considerable evidence to indicate that choice of an organisation’s strategy (stability strategy/growth strategy) is determined by three basic factors (contingency factors): (i) the organisation’s size, (ii) technology used by the organisation (for converting the financial, human and physical resources into products and services), and (iii) environmental uncertainty (external environment). Information technology and globalisation have had a tremendous impact on organisation structures. Many of today's managers realise that the traditional organisation structures based on bureaucratic principles no longer provide solutions to the challenges posed by the new paradigm environment. The needs of flexibility, adaptability to change, creativity, innovation, knowledge and the ability to overcome environmental uncertainties are among the biggest challenges facing many of the organisations. The result has been that the vertical (tall) structures are being replaced by horizontal (flat) structures, the organisations with mechanistic structures are being transformed into ones with organic structure . These shifts reflect a clear departure from the practice of centralised decision-making to decentralised decision-making, from command to consensus based self-control. The new forms of organisation structure that have emerged are: taskforce, network, virtual, boundary less structures. The salient features of these and other organisation structures are briefly described here to present an overview of different types of organisation structure and their suitability under different situations.

4.3.5 Benefits of a good organizational structure

1. It allows correlation and coordination among human, physical resources and enables the business to achieve its goals.
2. It ensures a smooth flow of communication and better control over the operations.
3. It provides the framework within which an organization functions while coordinating the responsibilities of individuals and departments.

The span of management, to a large extent gives shape to organizational structure. It refers to the number of subordinates that can be effectively managed by a superior. This determines the levels of management in the structure. The span of control depends upon:

- Capacity and intelligence level of managers.
- The trust of managers in their employees.
- The employees' intelligence level.
- Nature of job (routine or specialized).

4.3.6 Types of organizational structure

Line Organisation: Line organisation is the simplest form of organisation structure. Line organization is the oldest and simplest method of administrative organization. According to this type of organization, the authority flows from top to bottom in a concern. The line of command is carried out from top to bottom. This is the reason for calling this organization as scalar organization which means scalar chain of command is a part and parcel of this type of administrative organization. In this type of organization, the line of command flows on an even basis without any gaps in communication and co- ordination taking place. The line structure is based on the scalar principle, which states that authority and responsibility should flow in a direct line vertically from the highest level of the organisation to the lowest level. The primary emphasis in the line organisation is upon the superior-subordinate relationship. Every person in the organisation is in the direct chain of command. (Figure 1).

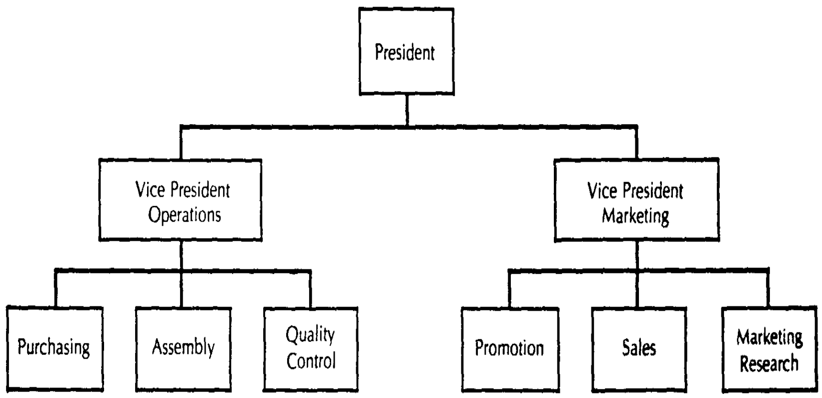


Figure: Line organization

Features of Line Organization

1. It is the simplest form of organization.
2. Line of authority flows from top to bottom.
3. Specialized and supportive services do not take place in these organizations.
4. Unified control by the line officers can be maintained since they can independently take decisions in their areas and spheres.
5. This kind of organization always helps in bringing efficiency in communication and bringing stability to a concern.

Merits of Line Organization

1. **Simplest-** It is the most simple and oldest method of administration.
2. **Unity of Command-** In these organizations, superior-subordinate relationship is maintained and scalar chain of command flows from top to bottom.
3. **Better discipline-** The control is unified and concentrates on one person and therefore, he can independently make decisions of his own. Unified control ensures better discipline.
4. **Fixed responsibility-** In this type of organization, every line executive has got fixed authority, power and fixed responsibility attached to every authority.
5. **Flexibility-** There is a co-ordination between the top most authority and bottom line authority. Since the authority relationships are clear, line officials are independent and can flexibly take the decision. This flexibility gives satisfaction of line executives.
6. **Prompt decision-** Due to the factors of fixed responsibility and unity of command, the officials can take prompt decision.

Demerits of Line Organization

1. **Over reliance-** The line executive's decisions are implemented to the bottom. This results in over-relying on the line officials.
2. **Lack of specialization-** A line organization flows in a scalar chain from top to bottom and there is no scope for specialized functions. For example, expert advices whatever decisions are taken by line managers are implemented in the same way.
3. **Inadequate communication-** The policies and strategies which are framed by the top authority are carried out in the same way. This leaves no scope for communication from the other end. The complaints and suggestions of lower authority are not communicated back to the top authority. So there is one way communication.
4. **Lack of Co-ordination-** Whatever decisions are taken by the line officials, in certain situations wrong decisions, are carried down and implemented in the same way. Therefore, the degree of effective co- ordination is less.
5. **Authority leadership-** The line officials have tendency to misuse their authority positions. This leads to autocratic leadership and monopoly in the concern.

Line and Staff Organisation

Line and staff organization is a modification of line organization and it is more complex than line organization. According to this administrative organization, specialized and supportive activities are attached to the line of command by appointing staff supervisors and staff specialists who are attached to the line authority. The power of command always remains with the line executives and staff supervisors guide, advice and counsel the line executives. Personal Secretary to the Managing Director is a staff official.

Most business organisations, except the very small, have this type of structure. As the organisations have grown complex, the problems of line executives have become sufficiently complicated. The line executives being generalists need the advice of personnel with specialised knowledge and functions to tackle these problems. For this purpose, the staff positions are created in the organisation. In line and staff organisation, the line authority remains the same as it does in the line organisation i.e. the authority flows from top to bottom; and the line executives perform the major functions; the staff functionaries support and advise the line executives. For example, for sound management of human resources, the line managers are provided specialised assistance through personnel/Human Resource managers. As staff functionaries are employed to perform supportive role, they do not have any power of command in the organisation (Figure 2).

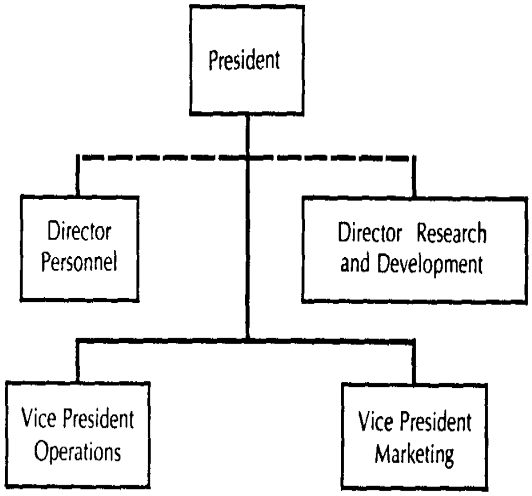


Figure: Line and Staff Organisation

Features of Line and Staff Organization

1. There are two types of staff :
   a. Staff Assistants- P.A. to Managing Director, Secretary to Marketing Manager.
   b. Staff Supervisor- Operation Control Manager, Quality Controller, PRO
2. Line and Staff Organization is a compromise of line organization. It is more complex than line concern.
3. Division of work and specialization takes place in line and staff organization.
4. The whole organization is divided into different functional areas to which staff specialists are attached.
5. Efficiency can be achieved through the features of specialization.
6. There are two lines of authority which flow at one time in a concern :
   a. Line Authority
   b. Staff Authority
7. Power of command remains with the line executive and staff serves only as counsellors.

Merits of Line and Staff Organization

1. **Relief to line of executives-** In a line and staff organization, the advice and counseling which is provided to the line executives divides the work between the two. The line executive can concentrate on the execution of plans and they get relieved of dividing their attention to many areas.

2. **Expert advice-** The line and staff organization facilitates expert advice to the line executive at the time of need. The planning and investigation which is related to different matters can be done by the staff specialist and line officers can concentrate on execution of plans.

3. **Benefit of Specialization-** Line and staff through division of whole concern into two types of authority divides the enterprise into parts and functional areas. This way every officer or official can concentrate in its own area.
4. **Better co-ordination-** Line and staff organization through specialization is able to provide better decision making and concentration remains in few hands. This feature helps in bringing co- ordination in work as every official is concentrating in their own area.
5. **Benefits of Research and Development-** Through the advice of specialized staff, the line executives, and the line executives get time to execute plans by taking productive decisions which are helpful for a concern. This gives a wide scope to the line executive to bring innovations and go for research work in those areas. This is possible due to the presence of staff specialists.
6. **Training-** Due to the presence of staff specialists and their expert advice serves as ground for training to line officials. Line executives can give due concentration to their decision making. This in itself is a training ground for them.
7. **Balanced decisions-** The factor of specialization which is achieved by line staff helps in bringing co- ordination. This relationship automatically ends up the line official to take better and balanced decision.
8. **Unity of action-** Unity of action is a result of unified control. Control and its effectively take place when co- ordination is present in the concern. In the line and staff authority all the officials have got independence to make decisions. This serves as effective control in the whole enterprise.

Demerits of Line and Staff Organization

1. **Lack of understanding-** In a line and staff organization, there are two authority flowing at one time. This results in the confusion between the two. As a result, the workers are not able to understand as to who is their commanding authority. Hence the problem of understanding can be a hurdle in effective running.
2. **Lack of sound advice-** The line official get used to the expertise advice of the staff. At times the staff specialists also provide wrong decisions which the line executives have to consider. This can affect the efficient running of the enterprise.
3. **Line and staff conflicts-** Line and staff are two authorities which are flowing at the same time. The factors of designations, status influence sentiments which are related to their relation, can pose a distress on the minds of the employees. This leads to minimizing of co- ordination which hampers a concern’s working.
4. **Costly-** In line and staff concern, the concerns have to maintain the high remuneration of staff specialist. This proves to be costly for a concern with limited finance.
5. **Assumption of authority-** The power of concern is with the line official but the staff dislikes it as they are the one more in mental work.
6. **Staff steals the show-** In a line and staff concern, the higher returns are considered to be a product of staff advice and counselling. The line officials feel dissatisfied and a

feeling of distress enters a concern. The satisfaction of line officials is very important for effective results.

Functional Structure

This is the most widely used form of organisation structure because of its simple logic and commonsense appeal. Here the tasks are grouped together on the basis of common functions. So, all production activities or all financial activities are grouped into a single function which undertakes all the tasks required of that function. A typical chart of a functional organisation is presented in Figure 3.

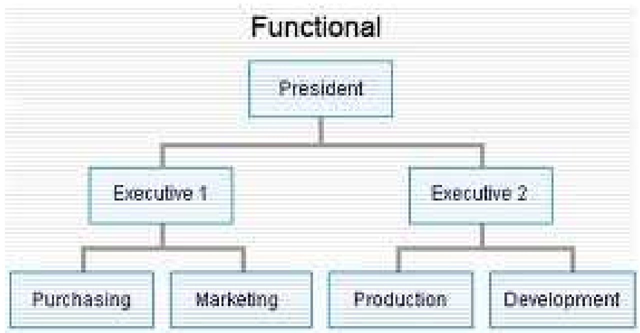


Figure: Functional structure

The functional structure suits best to the small to medium organisations producing one or a few products, where the goals of the organisation emphasise functional specialisation, efficiency and quality. When the activities or jobs are grouped keeping in mind the functions to be performed then it is called functional structure. These functions are organized in to separate departments. For example, in a manufacturing concern division of work into key functions will include production, purchase, marketing, and personnel.

Functional organization has been divided to put the specialists in the top position throughout the enterprise. This is an organization in which we can define as a system in which functional department are created to deal with the problems of business at various levels. Functional authority remains confined to functional guidance to different departments. This helps in maintaining quality and uniformity of performance of different functions throughout the enterprise.

The concept of Functional organization was suggested by F.W. Taylor who recommended the appointment of specialists at important positions. For example, the functional head and Marketing Director directs the subordinates throughout the organization in his particular area. This means that subordinates receives orders from several specialists, managers working above them.

Features of Functional Organization

1. The entire organizational activities are divided into specific functions such as operations, finance, marketing and personal relations.
2. Complex form of administrative organization compared to the other two.
3. Three authorities exist- Line, staff and function.
4. Each functional area is put under the charge of functional specialists and he has got the authority to give all decisions regarding the function whenever the function is performed throughout the enterprise.
5. Principle of unity of command does not apply to such organization as it is present in line organization.

Merits of Functional Organization

1. **Specialization-** Better division of labour takes place which results in specialization of function and its consequent benefit.
2. **Effective Control-** Management control is simplified as the mental functions are separated from manual functions. Checks and balances keep the authority within certain limits. Specialists may be asked to judge the performance of various sections.
3. **Efficiency-** Greater efficiency is achieved because of every function performing a limited number of functions.
4. **Economy-** Specialization compiled with standardization facilitates maximum production and economical costs.
5. **Expansion-** Expert knowledge of functional manager facilitates better control and supervision.
6. **Easy supervision-** Since the tasks to be done in one department are of similar nature, it becomes easy for the supervisor to guide and supervise the employees performing the jobs.
7. **Easy coordination-** Similarity of tasks being performed help in promoting control and coordination within the departments.
8. **Effective training-** Training of employees become easy as focus is only on a limited range of skills.

Demerits of Functional Organization

1. **Confusion-** The functional system is quite complicated to put into operation, especially when it is carried out at low levels. Therefore, co- ordination becomes difficult.
2. **Lack of Co- ordination-** Disciplinary control becomes weak as a worker is commanded not by one person but a large number of people. Thus, there is no unity of command.
3. **Difficulty in fixing responsibility-** Because of multiple authority, it is difficult to fix responsibility.

4. **Conflicts-** There may be conflicts among the supervisory staff of equal ranks. They may not agree on certain issues.
5. **Costly-** Maintenance of specialist's staff of the highest order is expensive for a concern.

Divisional Structure

This form of organisation structure is adopted by large companies producing a wide range of products. Here, the activities are grouped on the basis of the individual products manufactured by the company. Thus, one finds autonomous "little companies within the company" adopting this type of organisation structure. As such, within each of these little independent units, we find all important functions viz. production, marketing, finance and human resources. The organisation structure of a large multi-product pharmaceutical company is illustrated in Figure 4.

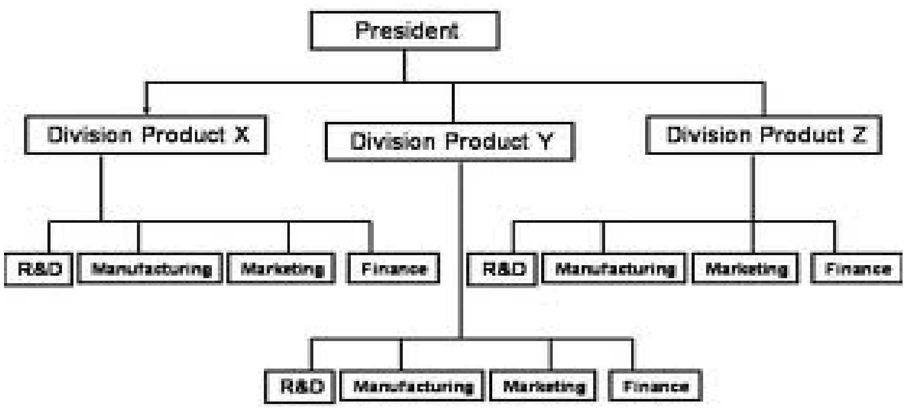


Figure: Divisional Organisational Structure

An organization which is very large in size and is producing more than one product, they need to evolve a design to cope with the complexity. The activities related to one product are grouped under one division. The organizational structure consists of separate divisions, each such division has its own manager. Within each division, functions like production, marketing, finance etc. are performed.

In other words, each division tends to adopt a functional structure. However, functions may vary across divisions in accordance to their product line.

Merits of divisional structure

1. **Development of personnel:** All activities related to one type of product are grouped under one department only. This helps in development of varied skills in the head and prepares him for a higher post.

2. Accountability: In this type of structure, the performance of each department can be easily assessed. It also helps in fixation of responsibility for poor performance so that appropriate remedial action can be taken.

3. Fast decision making: Each division functions independently and so decisions are much faster. This also promotes flexibility and initiative.

4. Expansion and growth: New departments can be easily added without disturbing the existing departments.

Demerits of Divisional structure

1. There may be a conflict among different divisions on allocation of resources. A particular division may seek to maximize profits at the cost of others.
2. Each department requires all the resources to work as an independent unit. This increases cost as there may be duplication of activities across products.
3. The divisional heads focus only on their product. They may fail to identify themselves as a part of the common organization and develop divisional conflicts, ignoring organizational interests.

Formal and Informal organization

When the managers are carrying on the organizing process then as a result, an organizational structure is created to achieve systematic working and efficient utilization of resources. This type of structure is known as formal organizational structure. This structure clearly spells out the job, authority, and responsibility assigned to each individual, the superior subordinate relationship and their designations. Features of formal structure are:

1. This structure is created deliberately created by the process of organizing.
2. The purpose of the structure is to achieve organizational goals.
3. It gives more emphasis to work than to interpersonal relationships among employees.
4. Each individual is assigned a specific job and a fixed authority. Various job positions and their interrelationships are clearly defined. This clarifies who is to report to whom.
5. It results into the creation of a scalar chain. Efforts if different departments are coordinated, interlinked and integrated.

Merits of formal structure are:

1. It helps in effective accomplishment of goals by clearly defining the job role of each employee.
2. It is easy to fix responsibility as mutual relationships are clearly defined.
3. There is no overlapping or duplication of work as work is systematically divided among various departments and individuals.
4. Unity of command is maintained through an established scalar chain.
5. It provides stability to the organization since the behaviour of members can be fairly predicted.

Demerits of formal structure are:

1. Because of scalar chain, communication is generally slow, leading to delay in action.
2. It does not give importance to the social and psychological needs of the employees. This may lead to demotivation.

3. It places more emphasis on structure and work, and so it ignores human relations, creativity and talent.

In the formal structure, individuals are assigned certain job positions. While working on these job positions, the individuals interact with each other and develop some social and friendly relations in the organization. This network of social and friendly groups forms another structure in the organization which is called the informal structure. Informal structure gets created automatically and spontaneously for getting psychological satisfaction. However, the existence of such organization depends upon the existence of formal structure. So, if there is no formal structure, there will be no job positions, there will be no people working on these job positions, and there will be no informal structure.

Features of informal structure are:

1. It gets created automatically without any deliberate efforts by the management.
2. The existence depends upon formal organization. It originates from within formal organization as a result of personal interactions among employees.
3. It does not follow any fixed path of authority or communication. So there is no specific direction of flow of information.
4. There are no officially laid down norms of behaviour. There is no definite structure. The source of information cannot be known.

Merits of Informal structure:

1. Informal communication does not follow scalar chain and so there can be faster spread of communication.
2. It helps to fulfil the social needs of members and gives them a sense of belongingness and motivation.
3. It helps the top level manager to know the real feedback of employees. This information can be made use of to fulfil organizational objectives.

Demerits of Informal structure

1. It may sometimes work against the interests of formal organization and spread rumors.
2. Sometimes the informal structure may oppose the policies and changes of management, and then it becomes very difficult to implement them in organization.
3. It may force the members to follow group norms. This may be harmful to the interest of the organization.

Hybrid Structure

The *hybrid form* combines features of both functional and divisional forms. When an organisation starts to get very large, it establishes some self-contained units. Functions that are considered important to each product are decentralised to the units; however, some functions like finance and accounting are centralised at headquarters for practical reasons (Figure 5).

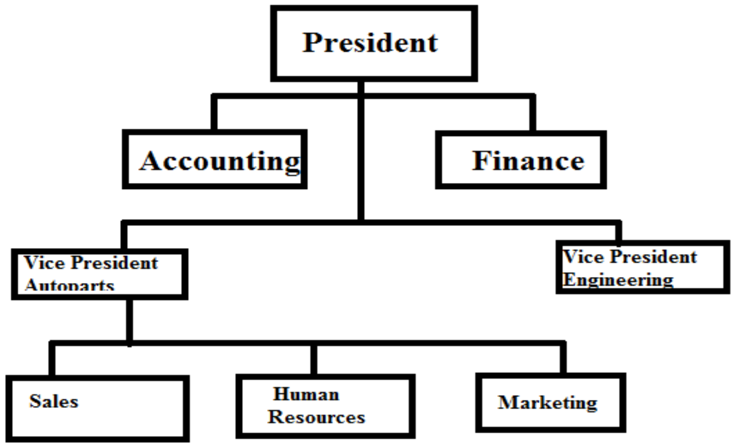


Figure: A Hybrid Organisation Structure

The functional part of the organisation is reflected in the departments centralised at the corporate level. However, each of the product divisions has specialists in functional areas for necessary assistance.

Merits of hybrid structure are:

1. The overall organisation enjoys the benefits of both functional and product (decentralised) structures.
2. It provides the opportunity to improve coordination both within and among divisions.
3. It helps in proper alignment of corporate and divisional goals.
4. It enables the organisation to pursue an adaptive strategy within the product divisions while at the same time achieving efficiency in the functional departments.

Demerits of hybrid structure are:

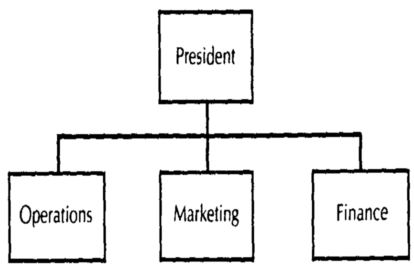
1. It often leads to excessive duplication of activities between functions and divisions.
2. Another disadvantage is its tendency to create conflict between headquarters and divisional functions.

4.3.7 Departmentalization

Grouping related functions into manageable units to achieve the objectives of the enterprise in the most efficient and effective manner is departmentalization. A variety of means can be utilized for this purpose. The primary forms of departmentalization are by function, process, product, market, customer, geographic area, and even matrix (also called project organization). In many organizations, a combination of these forms is used.

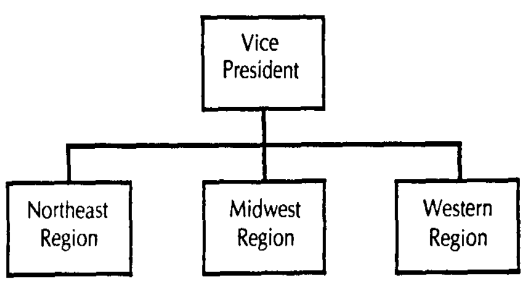
Functional Departmentalization

Every organization of a given type must perform certain jobs in order do its work. For example, key functions of a manufacturing company include production, purchasing, marketing, accounting, and personnel. The functions of a hospital include surgery, psychiatry, nursing, housekeeping, and billing. Using such functions as the basis for structuring the organization may, in some instances, have the advantage of efficiency. Grouping jobs that require the same knowledge, skills, and resources allows them to be done efficiently and promotes the development of greater expertise. A disadvantage of functional groupings is that people with the same skills and knowledge may develop a narrow departmental focus and have difficulty appreciating any other view of what is important to the organization; in this case, organizational goals may be sacrificed in favor of departmental goals. In addition, coordination of work across functional boundaries can become a difficult management challenge, especially as the organization grows in size and spreads to multiple geographical locations.



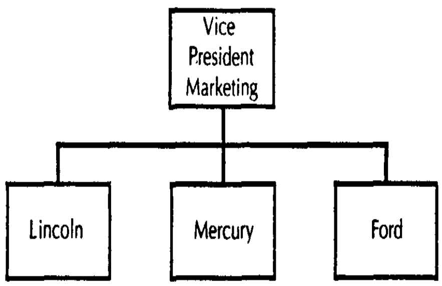
Geographic Departmentalization

Organizations that are spread over a wide area may find advantages in organizing along geographic lines so that all the activities performed in a region are managed together. In a large organization, simple physical separation makes centralized coordination more difficult. Also, important characteristics of a region may make it advantageous to promote a local focus. For example, marketing a product in Western Europe may have different requirements than marketing the same product in Southeast Asia. Companies that market products globally sometimes adopt a geographic structure. In addition, experience gained in a regional division is often excellent training for management at higher levels.



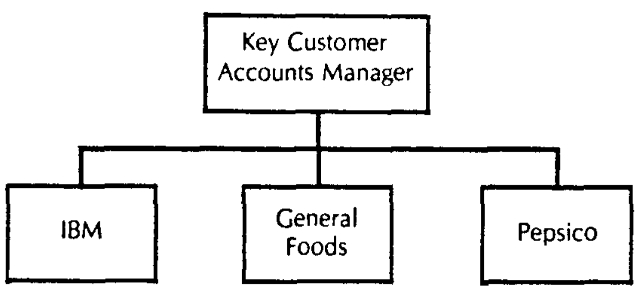
Product Departmentalization

Large, diversified companies are often organized according to product. All the activities necessary to produce and market a product or group of similar products are grouped together. In such an arrangement, the top manager of the product group typically has considerable autonomy over the operation. The advantage of this type of structure is that the personnel in the group can focus on the particular needs of their product line and become experts in its development, production, and distribution. A disadvantage, at least in terms of larger organizations, is the duplication of resources. Each product group requires most of the functional areas such as finance, marketing, production, and other functions. The top leadership of the organization must decide how much redundancy it can afford.



Customer/Market Departmentalization

An organization may find it advantageous to organize according to the types of customers it serves. For example, a distribution company that sells to consumers, government clients, large businesses, and small businesses may decide to base its primary divisions on these different markets. Its personnel can then become proficient in meeting the needs of these different customers. In the same way, an organization that provides services such as accounting or consulting may group its personnel according to these types of customers.



4.4 LEADERSHIP

Leadership is probably the most widely researched area of organisational behavior. Leadership is the art of motivating and influencing subordinates to perform their duties willingly and effectively to achieve the set organisational goals. It is important the followers willingly follow their leader. A true leader motivates the follower to follow and induces a belief in them that they will gain by the policies of the leader. A dictatorship under which the subordinates have to perform will not be considered as a true leadership. Inefficient leadership lowers employee morale, promotes dissatisfaction among employees and affects organisational productivity and proficiency.

4.4.1 Traits of effective Leaders

Since the beginning of history, people have been interested in studying the nature of leadership. The wanted to find the "traits" that distinguished leaders from non leaders and successful leaders from unsuccessful leaders. Some researches believed that cognitive and psychological factors like intelligence, ambition and aggressiveness are the traits commonly found in leaders. However, others believed that physical characteristic like height, large body structure and personal attractiveness are important traits of leaders

Most research studies on leadership suggest that there are certain factors that differentiate leaders from non leaders. Some of these include initiative, desire to lead, integrity, self confidence, analytical ability and knowledge of the specific company, industry or technology. If these factors are supplemented with traits such as charisma, creativity and flexibility, an individual is likely to be an effective leader. However, the presence of these characteristics does not guarantee that he will be an effective leader. Even if a person possesses these traits, he may not get an opportunity to use them.

4.4.2 Leadership Skills

Technical Skills – A person's knowledge and ability to make effective use of any process or technique constitutes his technical skills. The employees at operational and professional levels are required to have certain technical skills. The performance of an engineer, an accountant, a data entry operator and an assembly worker would greatly depend on his or her technical skills. However, as employees are promoted to managerial positions these skills become less relevant, while other skills become more important.

Human Skills – An individual's ability to cooperate with other members of the organization and work effectively in teams is referred to as human skills. Human skills also involve developing positive interpersonal relationships, solving people's problems and gaining acceptance of other employees.

Conceptual Skills – They refer to the ability of an individual to analyze complex situations and to rationally process and interpret available information. These skills are of least importance to the employees at operational level and are of utmost importance to managers at higher levels.

4.4.3 Theories of leadership

There are many theories that have attempted to explain the characteristics required by individuals to be effective leaders. There are three important theories that have attempted to explain leadership –personality trait theories, behavior theories and contingency theories.

Trait Theories

Initial research into leadership concentrated on the traits of the leaders. It was believed that there was something unique about the individual that enabled him to emerge as a leader. This theory emphasizes that leaders are born and not made and that leadership is a function of inborn traits. Some of these inborn traits are intelligence, understanding, perception, high motivation, socio-economic status, initiative, maturity, need for self actualization, self assurance and understanding of personal interpersonal relations. One trait theory is the “great person” theory of leadership. According to this theory leadership traits can be acquired with training and experience. They may not be inborn.

However, the trait theory of leadership has suffered from lack of conclusiveness and oversimplifications. As Eugene E. Jennings has concluded,” fifty years of study have failed to produce one personality trait or a set of qualities that can be used to discriminate leaders from non leaders. The critics have charged that the theory focuses attention only on the leader and disregards the dynamics of the leadership process. Also, the theory ignores the situational characteristics which may result in the emergence of a leader.

History is replete with non trained, non academics Fords, Edison’s and Carnegies who could not even claim a grammar school education, yet managed to become leaders whose influence was felt around the globe. Similarly, if tall people were inclined to be leaders then how could such short people as Napoleon or the most respected Prime Minister of India, Lal Bahadur Shastri have risen to a high leadership, gives rise to a logical criticism against its validity.

Behavioral Theories

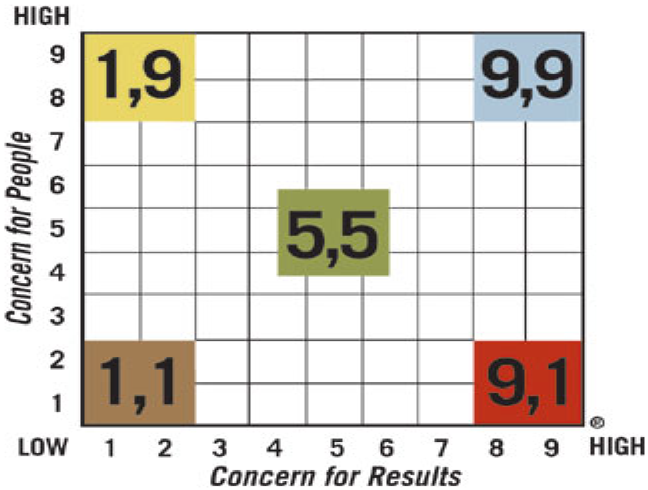
Since the trait theories failed to establish the relationship between traits and effective leadership, researchers turned their attention to the behavioral aspects of successful leaders. They attempted to identify the behaviors that were unique to leaders, and which distinguished them from non leaders. Behavioral theories of leadership are based upon the belief that great leaders are made, not born. This leadership theory focuses on the actions of leaders not on mental qualities or internal states. According to this theory, people can learn to become leaders through teaching and observation.

There are three important behavioral theories – the Ohio State studies, the University of Michigan Studies and the Managerial Grid – that have sought to identify the specific behaviors exhibited by effective leaders. In this unit we will discuss Managerial Grid.

1. The Managerial Grid

The managerial grid model (1964) is a behavioral leadership model developed by Robert R. Blake and Jane Mouton. This model originally identified five different leadership styles based on the concern for people and the concern for production. The optimal leadership style in this model is based on Theory Y.

Figure 1.2 The Managerial Grid



The Managerial Grid is based on two behavioral dimensions:

Concern for People– This is the degree to which a leader considers the needs of team members, their interests, and areas of personal development when deciding how best to accomplish a task.

Concern for Production– This is the degree to which a leader emphasizes concrete objectives, organizational efficiency and high productivity when deciding how best to accomplish a task.

The model consists of nine rows and columns. The rows represent the leader's concern for production and the column represents concern for people. Blake and Mouton found five intersection points in this model – 1,9; 1,1; 9,1; 5,5; 9,9.

Management Style 1,1 (impoverished management)

This management style has low concern for people and low concern for tasks/production. In this situation manager's major emphasis is to stay out of trouble. They exert minimum effort to get required job done and simply passed orders from superiors. The organizations just survive.

Management Style 1,9 (country-club management)

This management style has high concern for employees but low concern for production. Here peoples' needs are satisfied and a friendly atmosphere remains in the organizations. However this situation does not help organizations to achieve desired goals.

Management Style 9,1 (task or authoritarian management)

This management style has high concern for production and efficiency but low concern for employees. They may see personal needs for members as irrelevant or harmful to organizational goals and use their authority to pressure their subordinate to meet high production targets.

Management Style 5,5 (middle-of-the-road management)

This management style is having a moderate, intermediate amount of concern for both production and employee satisfaction. But this too is not the most suitable one.

Management Style 9,9 (team or democratic management)

This management style has high concern for both production and employee morale and satisfaction. Blake and Mouton believed that this style is the most effective management style. It provides improved performance, low absenteeism and turnover, and high employee satisfaction. 9.9 managers try to develop combine, committed work groups for both high production and high satisfaction.

One critic of the model is that it provides a framework for conceptualizing leadership styles but fails to reveal any new facts or establish any new relationships which could clarify the conflicting views on leadership.

Contingencies Theories

Contingency or situational theories of leadership propose that leaders have to change their style depending on the situation they face. A leader should carefully analyze the nature of the situation before deciding on the appropriate style of leadership to be adopted. Contingency theories gained prominence in the late 1960s and 1970s.

Four of the more well-known contingency theories are Fiedler's contingency theory, path-goal theory, the Vroom-Yetton decision-making model of leadership, and Hersey and Blanchard’s situational leadership theory.

1. Fielder's Contingency Theory

One of the most well validated situational theories is Fielder’s contingency model. Whilst Grid theory advocates adopting a high relationship – high task approach in all situations, contingency theory suggests that leaders should consider three contextual factors before deciding on the best people-task mix to any situation.

- **Leader-member relations** – This indicates the extent to which a leader is accepted by his subordinates. If a leader has friction with majority of his subordinates then he scores low on this dimension.
- **Degree of task structure** – This refers to the degree to which the task on hand can be performed efficiently by following a particular method.
- **Leader’s positional power** – It refers to the power, that the leader is bestowed within the organization. For example if a leader has more power if he is in a position to decide the rewards and incentives of his team.

The model has been shown to work best when situations are classified into one of three categories:

1. Favorable

2. Moderately favorable
3. Unfavorable

A situation is considered favorable to the leader if the scores on all the three dimensions are high. One of the major conclusions that can be drawn from this theory is that a particular leadership style maybe more effective in one situation and the same style may be totally ineffective in the other situation, and since a leadership style is more difficult to change, the situation must be changed to suit the leadership style which can be done by enhancing relationship with subordinates, by changing the task structure and getting more power.

2. Hersey and Blanchard's Situational Theory

The life cycle theory of leadership has been developed by Paul Hersey and Kenneth Blanchard. The model focuses on the 'maturity' of the followers thus affecting the leadership style. The 'maturity' of the subordinates can be defined as their ability to carry out a given task and willingness to perform the task. If the manager gives appropriate guidance to an employee, he is likely to develop the necessary job related abilities in a short time. However, all employees do not have the same level of competence and commitment; therefore, leaders are required to adopt various leadership styles:

i. **Telling** – If an employee is low in his ability and willingness to perform a task then the manager must constantly give directions to the employee to perform his task.
ii. **Selling** – If an employee is low in ability but high in willingness then the leader apart from giving directions has to give required support to perform that task.
iii. **Participating** – If an employee is capable of performing but is not willing to perform then the leader should give fewer directions and more responsibilities and extend maximum support to the employee.
iv. **Delegating** – If an employee is capable as well as willing to perform then the leader is not required to give detailed instructions and extensive support to the employee.

The strength of this model lies in its simplicity and intuitive appeal. Also, the model emphasizes on an individual's ability and willingness to do a task. This factor was mostly ignored by most of the researchers. However, the model ignores certain factors like leader's attitude that is the reason it is not widely accepted by most researchers.

4.4.4 Leadership Styles

Autocratic Leadership: Leaders make decisions without consulting their teams because they believe they are more intelligent and competent than their subordinates. This is considered appropriate when decisions genuinely need to be taken quickly, when there's no need for input, and when team agreement isn't necessary for a successful outcome.

Laissez-faire Leadership: Leaders completely delegate the responsibilities and do not interfere; they allow people within the team to make many of the decisions. Leader shows respect for subordinates and encourages them to express their views and opinions. This works well when the team is highly capable and motivated, and when it doesn't need close monitoring or supervision. However, this style can arise because the leader is lazy or distracted, and, here, this approach can fail.

Democratic Leadership or Participative Leadership: Although democratic leaders make the final decisions, they invite other members of the team to contribute to the decision-making process. This not only increases job satisfaction by involving team members, but it also helps to develop people's skills. Team members feel in control of their own destiny, so they're motivated to work hard by more than just a financial reward.

Because participation takes time, this approach can take longer, but often the end result is better. The approach can be most suitable when working as a team is essential, and when quality is more important than speed to market, or productivity.

Bureaucratic Leadership: Bureaucratic leaders work "by the book." And set certain rigid rules and regulations and procedures. They follow rules rigorously, and ensure that their staff follows procedures precisely. The employees constantly look ways to express their resentment towards the rules laid down by the organization. If a mistake occurs, they pass on the blame to other employees.

4.5 HUMAN RESOURCE MANAGEMENT

As one author has rightly said 1+1 makes an organization, i.e., where there are two or more persons there is in effect and organization. Some individuals prefer to work independently in isolated circumstances. But the vast majority of all work in today’s environment takes place within the context of a structured organization- a grouping of individuals into a unified and common effort. To look after the various functions set for the organization adequate resources in men and materials have to be arranged by individuals who serve as managers or supervisors within organizations. Thus there emerged the term ‘Human Resource Management’.

Of all the factors of production namely M’s of Management i.e Materials, Machinery, money, methods and Men, Man occupies an important place. The other 4 M’s by themselves will not help the organization to achieve its goals unless there is an effective coordination and utilization of human resources. Rensis Libert says, all the activities of any enterprise are initiated and determined by the persons who make up the institution, plant or office and all else that make a modern form are unproductive except for human effort and direction of all the tasks of the management.

In the past, people migrated from villages to towns seeking employment. They found themselves in totally different and new situations to which they were not used to. So whenever they feel frustrated, they return to their villages and this resulted in loss of trained labour. These people had no proper leader to guide them and even no proper masters to manage them. The necessity of proper personnel management was then felt. It was realized that a good personnel management will go a long way in making efficient the overall management of the organization.

The importance of human factor in any type of co-operative endeavor cannot be over emphasized. It is a matter of common knowledge that every business organization depends for its effective functioning not so much on its material or financial resources as on its pool of able and willing human resources. The over whelming importance of human factor is due to its unique characteristics. This is only resource which is able to produce an output greater than its input. Man alone can produce through motivated creativity- an output greater than the sum of his inputs. No other resource can do this. Human resource appreciates in value with the passage of time. As time passes people become experienced and skilled.it is not so with other resources which generally depreciate as time goes on.

Human resource is most complex and unpredictable in its behavior. There is no cook book formula of guide a manager how to motivate his workers. A manager can buy his worker's time, he can buy his physical presence at a given place, he can buy a measured number of skilled muscular motions per hour or day, but he cannot buy worker's enthusiasm, he cannot buy his initiative, he cannot buy his loyalty, he cannot buy his devotion. Each individual has his own distinct background. This makes each individual unique in his psychological frameworks. Hence they cannot be interchanged, much less standardized. This implies that all individuals in an organization cannot be treated alike. In employing and supervising people and in endeavoring to reach their motivation, a manager must follow tailor- made approach based on his understanding of the actions, attitudes, needs and urges of the worker concerned. This is a very formidable and challenging task.
Recruitment is a process of generating a pool of qualified applicants for organizational jobs. If the number of available candidates only equals the number of people to be hired, no real selection required-the choice has already been made. The organization must either leave some openings unfilled or take all the candidates.

"Recruitment is the process of finding potential individuals for employment. Such people may be willing applicants or they may need to be induced to apply for certain positions in your firm."

Recruitment is about finding qualified applicants and doing that often requires much more than just running an ad in newspaper. For example, simply acquiring the human capital necessary to replace normal attrition and provide for growth probably will require an employer to:

- Know the business and industry to successfully recruit qualified employees.
- Identify keys to success in the labor market, including ways to deal with competitors recruiting efforts.
- Cultivate networks and relationships with sources of prospective employees.
- Promote the company brand so that the organization becomes known as a good place to work.
- Create recruiting metrics in order to measure the effectiveness of recruiting efforts.

4.5.1 STRATEGIC APPROACH TO RECRUITMENT

A strategic approach to recruitment becomes more important as labor markets shift and become more competitive. Strategic human resource planning helps to align human resource strategies with organizational goals and plans. Therefore, it is important that recruitment be a part of strategic human resource planning. For example, at one time, Walgreens, the drugstore chain, had to cut back its plans to expand and open new stores, because of a shortage of trained pharmacists. Good recruitment and more lead time might have kept it from having to do that and allowed the strategic expansion to go forward.
As you know, strategy is a general framework that provides guidance for actions. If a company is driven by technology, recruitment must determine how to bring in the best technologists. If the strategy of a company is based on marketing, the focus should be on where the company will look to find the best marketing candidates. Certainly, cost is an issue and some employers are quite concerned about cost per hire. However, if a human resource strategy focuses on quality, a company might choose to hire only from the top 15% of candidates for critical jobs and from the top 30% of candidates for all other important positions. This approach likely would improve workforce quality, but it would cost more per hire.

Strategic recruitment may sometimes need to go beyond just filling empty positions. It can focus on discovering talent before it is needed, capitalizing on windfall opportunities when there is an abundance of highly qualified people, or perhaps developing strong internet recruitment abilities. Generally, the recruitment decisions dictate not only the kinds and numbers of applicants, but also how difficult or successful recruiting efforts may be.
Even during periods of reduces hiring, implementing long range plans means keeping in contact with outside recruitment sources to maintain visibility, while also maintaining employee recruitment channels inside the organization. These efforts allow management to

match recruitment activity with organizational and human resource plans. Employers have faced shortages of workers who have the appropriate knowledge, skills and abilities. Further, as business cycle fluctuates, demand for labor changes and the number of people looking for work changes.

Now you should know that **labor markets** are external supply pool upon which recruiter target for the process for recruitment. The labor market has further been divided into labor force population, applicant population, applicant pool and individuals selected components. The **labor force population** is made up of all individuals, who are available if all possible recruitment strategies are used. This large number of potential applicants may be reached using different recruitment methods like newspaper ads, internet sites etc. Each recruitment method will reach different segments of the labor force population. The **applicant population** is a subset of the labor force population which is available for selection, if a particular recruitment approach is used. For example, an organization might limit its recruitment for management trainees to MBA graduates from major universities. At least four recruitment decisions affect reaching the applicant population:

- *Recruitment method*: advertising medium chosen, including use of employment agencies.
- *Recruitment message*: what is said about the job and how it is said?
- *Applicant qualifications required*: education level and amount of experience necessary.
- *Administrative procedures*: when recruitment is done, applicant follow-up and use of previous applicant files.

The applicant pool consists of all persons who are actually evaluated for selection. Many factors can affect the size of applicant pool, including the reputation of the organization and industry as a place to work, the screening efforts of the organization, job specifications and the information available. If a suitable candidate is found, then the organization selects the individual and makes the job offer.

4.5.2 STRATEGIC RECRUITMENT DECISIONS

An employer must make a number of recruitment decisions based upon the recruitment needs identified as part of human resource planning. Important ones are:

1) Organization based vs. outsourced recruitment: An initial and basic decision is whether the recruitment will be done by the employer or outsourced. This decision need not be an “either-or” decision, with all recruitment done by organizational staff or else external resources used exclusively. In most organizations, human resource staff members handle the bulk of recruitment efforts. The distribution of recruitment responsibilities between the human resource department and operating managers is typical for all organizations except smallest organizations. The **HR unit** undertakes various activities like forecasting of recruitment needs, preparation of copy for recruitment ads and campaigns, planning and conduction of recruitment efforts and audits and evaluation of all recruitment activities, while the **operating manager** performs activities like anticipation of needs for employees to fill vacancies, assistance in recruitment efforts with information about job requirements and review of success and failure of recruitment activities. As you know recruitment is a time consuming process, given all the other responsibilities of human resource staff and other managers in **organization's outsourcing**, it is a way to both decrease the number of HR staff needed and free up time for HR staff members. Recruitment can be outsourced in a number of ways. For example, some large employers outsource such functions as placement of advertisements, initial screening of resumes and initial phone contacts with potential applicants. Once those activities are done, then the employers HR staff take over the rest of recruitment activities.

2) Recruitment presence and image: Recruitment efforts may be viewed as either continuous or intensive. **Continuous** efforts to recruit offer the advantage of keeping the employer in the recruitment market. For example, with college recruitment, some organizations may find it advantageous to have a recruiter on a given campus each year. Employers that visit a campus only occasionally are less likely to build a following in that school overtime. **Intensive recruitment** may take the form of a vigorous recruitment campaign aimed at hiring a given number of employees, usually within a short period of time. Such efforts may be the result of failure in the HR planning system to identify the needs in advance or to recognize drastic changes in workforce needs due to unexpected workloads. Additionally, the recruitment image of an industry and an employer can significantly affect whether individuals ever consider a firm and submit applications. For examples, in the fast food industry, the product image and reputation of a firm affects the attractiveness of the firm as a potential employer of teenagers and retirees. Recruitment should be seen as a part of organizational marketing efforts and linked to the overall image and reputation of the organization and its industry.

3) Training of recruiters: Another important strategic issue is how much training will be given to recruiters. In addition to being trained on interviewing techniques, communications skills and knowledge of the jobs being filled, it is crucial that recruiters learn the types of actions that violate regulations and how to be sensitive to diversity issues with applicants. Training in those areas often includes interview do's and don'ts and appropriate language to use with applicants. Racist, sexist and other inappropriate remarks hurt the image of the employer and may result in legal complaints. For instance, a male college recruiter regularly asked female candidates about their marital status and if they were single and attractive, he later called applicants and asked them for dates. Only after two students complained to the university placement office did the employer learn of the recruiter's misconduct.

4) Regular vs. flexible staffing: Another strategic decision affects how much recruitment will be done to fill staffing needs with regular full-time and part-time employees. Decisions as to who should be recruited, depends upon whether to seek traditional employees or to use more flexible approaches, which might include temporaries or independent contractors. A number of employers feel that the cost of keeping a regular workforce has become excessive and grows worse due to increasing government-mandated costs. However, not just the money is at issue. The number of governmental regulations also constrains the employment relationship, making many employers reluctant to hire new employees. Flexible staffing uses workers who are not traditional employees. Using of flexible staffing arrangements allows an employer to avoid some of the cost of full time benefits such as vacation pay and pension plans, as well as to recruit in a somewhat different market. These arrangements provide temporary workers, independent contractors and employee leasing.

5) **Recruitment and diversity considerations:** Recruitment as a key employment related activity is subject to various legal considerations, especially equal employment laws and regulations. As part of legal compliance in the recruiting process, organizations must work to reduce external disparate impact, or under-representation of protected class members compared with labor markets utilized by the employer. If disparate impact exists, then the employer may need to make special efforts to persuade protected-class individuals to apply for the jobs. For employers with affirmative action plans, special ways to reduce disparate impact may be identified as goals and listed in those plans. Some employers that emphasize internal recruitment should take actions to obtain protected class applicants externally if disparate impact exists in the current workforce. When a particular protected class is under-represented in an organization, word-of-mouth referral by existing employees has been considered a violation of title 7 of the **Civil Rights Act of 1964**, because it continues a past pattern of discrimination.

4.5.3 Types of Recruitment

Recruiting strategy and policy decisions entail identifying where to recruit, whom to recruit, and how to recruit. One of the first decisions determines the extent to which internal or external sources and methods will be used. Both promoting from within the organization (*internal recruitment*) and hiring from outside the organization (*external recruitment*) come with advantages and disadvantages. Most employers combine the use of internal and external methods. Organizations that face rapidly changing competitive environments and conditions may need to place a heavier emphasis on external sources in addition to developing internal sources. However, for organizations existing in environments that change slowly, promotion from within may be more suitable. Once the various recruiting policy decisions have been addressed, then the actual recruiting methods can be identified and used. These include internal and external sources, as well as internet/web based approaches.

4.5.3.1 INTERNAL RECRUITMENT

Internal recruitment involves various sources developed and managed inside of any organization. The most common internal recruitment method includes: organizational databases, job postings, promotions & transfers, current-employee referrals and re-recruiting of former employees and applicants.

Internal recruitment process: Within the organization, tapping into databases, job postings, promotions and transfers provides ways for current employees to move to other jobs. Filling openings internally may add motivation for employees to stay and grow in the organization rather than pursuing career opportunities elsewhere.

1) Organizational database: The increased use of human resource management systems allows HR staff members to maintain background and information on existing employees. As openings arise, HR employment specialists can access databases by entering job requirements and then get a listing of current employees meeting those requirements. Various types of employment software sort employee's data by occupational fields, education, areas of career interests, previous work histories and other variables. For example, if a firm has an opening for someone with an MTM and marketing experience, the key words MTM and marketing can be entered in a search field and the program displays a list of all current employees with these two items identified in their employee profiles. The advantage of such database is that they can be linked to other HR activities. Opportunities for career development and advancement are major reasons why individuals stay or leave their employers. With databases, internal opportunities for individuals can be identified. Employee profiles are continually updated to include such items as additional training or education completed, special projects worked on, career plans and desires noted during performance appraisal and career mentoring discussions.

2) Job posting: The major means for recruitment of employees for other jobs within the organization is **job posting**, a system in which the employer provides notices of job openings and employees responds by applying for specific openings. The organization can notify employees of job vacancies in a number of ways, including posting notices on the company intranet and internet websites, using employee's newsletters and sending out e-mails to managers and employees. Job posting can be ineffective if handled improperly.

Jobs generally are posted before any external recruitment is done. The organization must allow a reasonable period of time for present employees to check notices of available jobs before it considers external applicants. When employees bids are turned down, they should discuss with their supervisors or someone in the HR area, the knowledge, skills and abilities they need, in order to improve their opportunities in the future. Some organizations use automated systems that combine elements of databases and job postings. **The Technology Transforming HR** presents examples of such systems.

3) Promotions and transfers: Many organizations choose to fill vacancies through promotions or transfers from within whenever possible. Although most often successful, promotions and transfers from within have some drawbacks as well. A person's performance on one job may not be a good predictor of performance on another, because different skills may be required on the new job. As employees transfer or are promoted to other jobs, individuals must be recruited to fill their vacated jobs. Planning on how to fill those openings should occur before the job transfers or promotions, not afterward. It is clear that people in organizations with fewer levels may have less frequent chances for promotion. Also, in most organizations, promotions may not be an effective way to speed the movement of protected class individuals up through the organization if doing that is an organizational concern. Some promotions and transfers may require employee relocation as well.

4.5.3.2 EXTERNAL RECRUITMENT

This type of recruitment involves external sources. There are many external sources available for recruiting. In some tight labor markets, multiple sources and methods may be used to attract candidates for the variety of jobs available in the organizations. Some of the more prominent methods are highlighted further.

1) College and university recruitment: College or university students are a significant source for entry-level professional and technical employees. Most universities maintain career placement offices in which employers and applicants can meet. A number of considerations affect an employer's selection of colleges and universities at which to conduct interviews. The major determinants are current and anticipated job openings, reputations of the colleges and universities, experiences with placement offices and previous graduates, organizational budget constraints, market competition for graduates and cost of available talent & typical salaries.

2) School recruitment: High schools or vocational/technical schools may be good sources of new employees for some organizations. Many schools have a centralized guidance or placement office. Promotional brochures that acquaint students with starting jobs and career opportunities can be distributed to counselors, librarians or others. Participating in career days and giving company tours to school groups are other ways of maintaining good contact with school sources. Cooperative programs in which students work part-time and receive some school credits also may be useful in generating qualified future applicants for full time positions.

3) Labor unions: Labor unions are a good source of certain types of workers. In such industries as electrical and construction ones, unions have traditionally supplied workers to employers. A labor pool is generally available through a union and workers can be dispatched from it to particular jobs to meet the needs of the employers. In some instances, the union can control or influence recruitment and staffing needs. An organization with a strong union may have less flexibility than a non union company in deciding who will be hired and where that person will be placed. Unions can also benefit employers through apprenticeship and cooperative staffing programs, as they do in the building and printing industries.

4) Employment agencies and headhunters: Some employment agencies operate branch offices in many cities throughout the states and do not charge fees to applicants and employers. Private employment agencies also operate in most cities. For a fee collected from either the employee or the employer, these agencies do some preliminary screening and put the organization in touch with applicants. Private employment agencies differ considerably in the levels of service, costs, policies and types of applicants, they provide. Employers can reduce the range of possible problems from these sources by giving complete descriptions and specifications for jobs to be filled.

5) Competitive sources: Other sources for recruitment include professional and trade associations, trade publications and competitors. Many professional societies and trade associations publish newsletters or magazines and have web sites containing job ads. Such sources may be useful for recruiting specialized professionals needed in an industry.

6) Media sources: You know that media sources like newspapers, magazines, television, radio and billboards are widely used. Some firms have used direct mail with purchased lists of individuals in certain fields or industries. Whatever medium is used, it should be tied to the relevant labor market and should provide sufficient information on the company and the job. Details about the job, the application process, desired candidate qualifications and an overview of the organization are all important.

7) Job fairs and special events: Employers in tight labor markets or needing to fill a large number of jobs quickly have used job fairs and special recruitment events. Job fairs also have been held by economic development entities, employers associations, HR associations and other community groups to help bring employers and potential job candidates together. For example, to fill jobs in one metropolitan area, the local employer UKEM annually sponsors job fair at which 75-125 employers can meet applicants. Publicity in the city draws more than 1000 potential recruits. One **cautionary note**: some employers at this and other job fairs may see current employees shopping for jobs at other employers. **Another cautionary note**: “general” job fairs are likely to attract many people including more unemployed attendees. Industry or skill-specific events offer more satisfactory candidates. **Virtual job fairs** have been used by the federal government and others. **Drive through** job fairs at shopping malls has been used by employers in a number of communities. At one such event, interested persons can drive up to a tent outside the mall and pick up applications from a menu board of employers, then park and interview in the tent with the recruiters if time allows.

8) Creative recruitment methods: In labor markets that are tight and in industries with significant shortages of qualified applicants, employers turn to more creative recruitment methods. Regardless of the method used, the goal is to generate a pool of qualified applicants so that the jobs in organizations are filled in a timely manner. Some methods may be more effective at recruitment for certain jobs than others. Some examples are as use of a plane towing an advertising banner over beach areas, advertisement of jobs on local movie theater screens as pre-show entertainment, holding raffles for employees who refer candidates, with cars and trips being used as prizes, offer of free rock tickets to first twenty applicants hired, recruitment of younger technical employees at video game parlors and arrangement of partnerships with downsizing firms to interview those being laid off etc.

9) Internet recruitment: The internet has become the primary means for many employers to search for job candidates and for applicants to look for jobs. The explosive growth in general internet use is a key reason. Internet users tap the internet to search for jobs almost as frequently as they read classified ads in newspapers. Many of them also post or submit resumes on the resumes on the internet. It is also known as **e-recruitment**. Several methods are used for internet recruitment. The most common ones are internet job-boards, professional/career web sites and employer web sites.

4.5.4 Recruitment Evaluation and Metrics

As you know recruitment is an important aspect of organizational working, it becomes important to know about the effectiveness of various recruitment, sources, methods and efforts. The primary way to find out whether recruitment efforts are cost-effective, is to conduct formal analysis as part of recruitment evaluation. Several areas can be measured when trying to analyze recruitment effectiveness. Five specific areas that need to be considered include: quantity of recruits, quality of recruits, time available for filling empty positions, cost per recruit and satisfaction of parties involved. Metrics that look at the quality of the selection decisions made will be included here.

1) Evaluating recruitment quantity and quality: As one means of evaluating recruitment, organization can see how their recruitment efforts compare with past patterns and with the recruitment performance of other organizations. Certain measures of recruitment effectiveness are quite useful in indicating whether sufficient numbers of the targeted applicant population group are being attracted. Information on job performance, absenteeism, cost of training and turnover by recruitment source also help adjust future recruitment. For example, some companies find that recruitment at certain colleges or universities furnishes stable, high performers, whereas recruitment at other school provides employees who are more prone to leave the organization. General metrics for evaluating quantity and quality of recruitment include various variables as

Quantity of applicants: because the goal of a good recruitment program is to generate a large pool of applicants from which to choose, quantity is a natural place to begin evaluation. The basic measure here considers whether the quantity of recruits is sufficient to fill job vacancies. A related question is- Does recruitment provide enough qualified applicants with an appropriate mix of protected class individuals? Similar is the case of **quality of applicants**: in addition to quantity, a key issue is whether or not, the qualifications of the applicant pool are sufficient to fill the job openings. Do the applicants meet job specifications and do they perform the jobs well after hire? What is the failure rate for new hires for each recruiter? Measures that can be used include items such as performance appraisal scores, months until promotion, output and sales volume for each hire.

2) Evaluating the time required to fill openings: Looking at length of time it takes to fill openings is a common means of evaluating recruitment efforts. If openings are not filled quickly with qualified candidates, the work and productivity of the organization likely suffer. If it takes seventy five days to fill empty positions, managers who need those employees will be unhappy. Generally, it is useful to calculate the average amount of time it takes from contact to hire for each source of applicants, because some sources may produce recruits faster than others. For example, one firm calculated various averages as **agencies** took 25 days from contact to hire, **walk-ins** took 7 days from contact to hire and **internet** took 12 days from contact to hire. The data reveals that use of agencies takes significantly longer to fill openings than relying on other means, thereby suggesting the use of sources to time available.

3) Evaluating the cost of recruitment: The major number for measuring cost is calculating recruitment expenses for the year divided by the number of hires for the year:

Recruiting expenses / Number of recruits hired

The problem with this approach is accurately identifying what should be included in the recruitment expenses. Should expenses for testing, background checks, relocations or signing bonuses be included, or are they more properly excluded? If those questions are answered, then the cost might be allocated to various sources to determine how much each hire from each source costs. The costs also can be sorted by type of job-costs for hiring managers, secretaries, bookkeepers and sales personnel with all be different.

1) Evaluating recruitment satisfaction: The satisfaction of two groups is useful in evaluating recruitment. Certainly the views of managers with openings to fill are important, because they are "customers" in real sense. But also the applicants (*those hired and those not hired*) are an important part of the process and can provide useful input. Managers can respond to questions about the quality of the applicant pool, the recruiter's service, the timeliness of the process and any problems that they see. Applicants might provide input on how they were treated, their perceptions of the company and the length of the recruitment process.

2) General recruitment process metrics: Because recruitment activities are important, the costs and benefits associated with them should be analyzed. A cost benefit analysis of recruitment efforts may include both direct costs (*advertising, recruiters, salaries, travel, agency fees etc.*) and indirect costs (*involvement of operating managers, public relations, image etc.*) cost benefit information on each recruitment source can be calculated. Comparing the length of time that applicants hired from each source stay in the organization with the cost of hiring from that source also offers a useful perspective. Various methods are as **yield ratios**-one means for evaluating recruitment efforts is yield ratios, which compare the number of applicants at one stage of the recruitment process with the number at another stage. The result is a tool for approximating the necessary size of the initial applicant pool. It is useful to visualize yield ratios as a pyramid, in which the employer starts with a broad base of applicants that progressively narrows. For example, if 100 contacts are made by the employer, further 30 applications are received, which proceeds by 15 final interviews, then 10 receives offer to join by the employer and finally only 5 candidates join the organization, thus forming a pyramid for that recruitment as graph narrows with a broad base. **Selection ratio**-another useful calculation is the selection rate, which is the percentage hired from a given group of candidates. It equals the number hired divided by the number of applicants. For examples, a rate of 30% indicates that 3 out of 100 applicants were hired. The selection rate is also affected by the validity of the selection process. A relatively unsophisticated selection program might pick 8 out of 10 applicants for the job. Four of those might turn out to be good employees. A more valid selection process might pick 5 out of 10 applicants but all perform well. Selection rate measures not just recruitment but selection issues as well. So do acceptance rate and success base rate. **Acceptance rate**-calculating the acceptance rate helps identify how successful the organization is at hiring candidates to employ. The acceptance rate is the percent of applicants hired divided by the total number of applicants. After the company goes through all the effort to screen, interview and make job offers, hopefully most candidates accept job offers. If they do not then HR might want to look at reasons why managers and HR staff cannot "close the deal". It is common for HR staff members to track the reasons candidates turn down job offers, which help explain the rejection rate, in order to learn how competitive the employer is compared with other employers and what factors are causing candidates to choose employment elsewhere. **Success base rate**-a longer term measure of recruitment effectiveness is the success rate of the applicants. The success base rate can be determined by comparing the number of past applicants, who have become successful employees against the number of applicants they competed against for their jobs, using historical data within the organization. Also the success base rate can be compared with the success rates of other employers in the area or industry, using bench marking data. This rate indicates whether the quality of the employees hired results in employees who perform well and have low turnover. For example, assume that if 10 people were hired at random, one would expect four of them to be good employees. Thus a successful recruitment program should be aimed at attracting the 4 in 10 who are capable of doing well on this particular job. Realistically, no recruitment program will attract only the 4 in 10 who will succeed. However, efforts to make the recruitment program attract the largest proportion of those in the base rate group can make recruitment efforts more effective.

CHECK YOUR PROGRESS 1:

1) What do you understand by recruitment and strategic approach to recruitment?

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2) What are strategic recruitment decisions and types of recruitment?

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4.5.5 Selection

As you know recruitment is followed by various stages of selection up to final selection, so it becomes important to know about selection in a detailed manner. Selection decisions are important part of successful HR management. Some even argue that they are the most important part. Improvement in organizational performance may come from many sources- but unless the employer begins by having the necessary people with the appropriate capabilities in place, positive organization results are less likely to occur. **Selection** is the process of choosing individuals with qualifications needed to fill jobs in an organization. Without qualified employees, an organization is less likely to succeed. Perhaps the best perspective on selection and placement comes from two HR truism that clearly identify the importance of an effective selection process:

- **Hire hard, manage easily**-The amount of time and effort spent selecting the right people for the job may make managing them as employees much less difficult because more problems will be eliminated.

- **Good training will not make up for bad selection**-When the right people with the appropriate capabilities are not selected for jobs, employers have difficulty later adequately training those individuals who are selected.

Further selection may be expressed in other words as follows:
"Selection is the deliberate effort of someone in your firm to choose one or a number of people from a group of applicants for particular positions. From a group of applicants for a particular job it might be possible to choose some for other positions. Thus from a number of applicants for a stenographic position, one might also find desirable people to fill a secretarial position."

Organizations vary in how they allocate selection responsibilities between HR specialists and operating managers. The need to meet requirement of the organizations has forced many organizations to better plan their selection efforts. Still in some organizations, each department screens and hires its own people because they are sure no one else can choose employees for them as well as they can themselves. This practice is particularly prevalent in smaller firms. But the validity and effectiveness of this approach may be questionable. Other organizations have the HR unit do the initial screening of the candidates and managers or supervisors make the final selection from a qualified group of individuals. As a rule, the higher the position being filled, the greater the likelihood that the ultimate hiring decisions will be made by operating managers rather than HR specialists. Selection responsibilities are affected by the existence of a central employment office, which usually is part of an HR department. In smaller organizations, especially in those with fewer than 100 employees, a full time employment specialist or unit may be impractical.

But for larger employers, centralizing employment within one unit may be appropriate. The employment function in any organization may be concerned with some or all of the following activities: receiving applications, interviewing applicants, administering tests to applicants, conducting background investigations, arranging for physical examinations, placing and assigning new employees, coordinating follow-up of these employees, conducting exit interviews with departing employees and maintaining appropriate records and reports. The ultimate purpose of selection is **placement**, or fitting a person a person to the right job. Placement of human resources should be seen as primarily a matching process. How well an employee is matched to a job affects the amount and quality of the employees work. This matching also directly affects training and operating costs. Individuals who are unable to produce the expected amount and quality of work can cost an organization a great deal of money and time. Selection and placement activities typically focus on applicant's knowledge, skills and abilities. The **person/job fit** is a simple but important concept that involves matching people's qualifications with the characteristics of jobs. People already in jobs can help identify the most important features for success, as a part of job analysis. In addition to matching individuals to jobs, employers also increasingly try to determine the congruence between individuals and organizational factors to achieve **person/organization fit**. Person/organization fit is important when general factors of job success are as important as organizational set up or composition in a perfect manner.

SELECTION PROCESS

Most organizations take a series of consistent steps to process and select applicants for jobs. Variations on the basic process depend on organizational size, nature of the jobs to be filled, number of people to be selected, the use of electronic technology and other factors. This process can take place in a day or over a much longer period of time. If the applicant is processed in one day, the employer usually checks references after selection. One or more phases of the process may be omitted or order changed, depending on the employer.

Legal concerns in the selection process: Selection is subject to a number of legal concerns, especially all the equal employment opportunity (EEO) regulations and laws. Throughout the selection process, application forms, interviews, tests, background investigations and any selection activities must be conducted in a non-discriminatory manner. Also, applicants who are not hired should be rejected only for job related reasons; rejections based on protected class status are illegal.

Defining who is an applicant: Employers are required to track applicants who apply for jobs at their companies. Gathering and logging data on applicants should be comprehensive and consistent. It is increasingly important for employers to carefully define exactly who is an applicant and who is not, because many employers are required to track and report applicant information as part of equal employment and affirmative action plans. Also, it is important because employers may be targeted by scams involving individuals who claim to have applied for jobs but whose primary purpose is to file lawsuits. Without a clear definition of who is an applicant, employers might have to count as applicants all individuals who submit unsolicited resumes, respond electronically to web site employment postings, or walk in to apply for jobs. Various things to be taken into consideration are:

- The employer must have taken steps to fill a particular job.
- The individual must have followed the employer's application procedure.
- The individual must have expressed interest in a particular position.

Applicant flow documentation: Employers must collect data on the race, sex and other demographics of applicants to fulfill EEO reporting requirements. Many employers ask applicants to provide data in a flow form that may be attached to the application form. It is important that employers review this flow form separately and not use it in any other HR selection activities, or they may be accused of using applicant information inappropriately. Because completing the form is voluntary and employers can demonstrate that they tried to obtain the data.
Various steps involved in the **process of selection** have been discussed further and may be drawn into a flow chart and discussed further as follows:

1) Applicant job interest: Individual interest of an applicant constitutes the basis of selection. Individuals desiring employment can indicate interest in a number of ways. Traditionally, individuals have submitted resumes by mail or fax, or applied in person at an employer's location. But with the growth in internet recruitment, many individuals complete applications on-line or submit resumes electronically. Regardless of how individuals express interest in employment, the selection process has an important public relations dimension. Discriminatory hiring practices, impolite interviewers, unnecessarily long waits, unreturned telephone inquiries, inappropriate testing procedures and lack of follow up responses can produce unfavorable impressions of an employer. Job applicant's perceptions of the organization and even of the products or services it offers will be influenced by how they are treated. Most job seekers appear to know little about organizations before applying to them for jobs. Consequently, when deciding whether or not to accept a job, they tend to give considerable weight to the information received from prospective employers in the recruitment and selection process. For applicants, information on pay, nature of the work, geographic location and opportunity for promotion is useful. Unfortunately, some employers oversell their jobs in recruitment related advertisements, making the jobs appear better than they really are. Through the process of a **realistic job**

preview, the applicants are provided with an accurate picture of a job, including the organizational realities surrounding it, so that they can better evaluate their own job expectations. With a realistic job preview, the organization hopes to prevent unrealistic expectations, which helps reduce employee disenchantment and ultimately employee dissatisfaction and turnover. A review of research on realistic job previews found that they tend to be effective in that regard.

2) Pre-employment screening: As you know, many employers conduct pre-employment screening to determine if applicants meet the minimum qualifications for open jobs. For examples, a firm hires security guards and armored car drivers might use a pre-screening interview to verify whether an applicant meets the minimum qualifications of having a valid driver's license, being free of any criminal convictions in the past seven years and having been trained to use a pistol. Because these minimum standards are required, it would be a waste of time for any applicant who could not meet them to fill out an application form initially. Some areas typically covered by employers include types of available jobs, applicants pay expectations, job location and travel requirement. Some employers have everyone who may be interested in a job fill out an application first. The completed application then becomes the basis for pre-screening information. But collecting, storing and tracking all of these applications can create significant work for HR staff members. That is why pre-screening has grown to be more prevalent. Pre-employment screening done electronically has increased dramatically in the past few years. One types of screening uses computer software to scan for keywords in resumes or applications submitted electronically.

Hundreds of large companies use types of text searching or artificial intelligence software to scan, score and track resumes of applicants. For example, a large financial firm streamlined its application process so that individuals can complete applications electronically. The applicant's qualifications are then electronically compared with job profiles to determine which candidates are likely to be successful and those candidates are contacted for interviews. Pre-screening sorts out the serious job contenders from hundreds of electronic applicants by looking for keywords, key skills or experience. Assessment evaluates skill level, experience or even attitudes through an online test of some sort taken by the candidate. These and other features are often part of applicant tracking system that are used for screening, tracking, testing, assessing and reporting on the people who apply for jobs. Such software systems are used most often when the volume of applicants is large, the quality of hires needs to be increased, hiring cycles need to be shortened, the cost of hiring needs to be reduced and the firm needs to reach geographic areas not visited by recruiters.

1) **Application forms:** Application forms are almost universally used and can take different formats. Properly prepared application form serves four purposes first it is a record of applicant's desire to obtain a position, secondly it provides the interviewer with a profile of the applicant that can be used in the interview, third, it is a basic employee record for applicants, who are hired and fourth, it can be used for research on the effectiveness of the selection process. Many employers use only one application form, but others need several. For example, a hospital might need one form for nurses and medical techniques, another form for clerical and office employees, another for managers and supervisors and another for support workers in housekeeping and food service areas. **Application disclaimers and notices:** Application forms need disclaimers and notices so that appropriate legal protections are stated by employers. The recommended disclosures and notices appearing on application include: employment at will (*right of the employer to carry out employment or terminate it*), reference contacts, employment testing, application time limit and information falsification (*conveying applicant to sign the form otherwise it may lead to termination of their contender ship*).
2) **Immigration forms:** The immigration reform and control act of 1986, as revised in 1990, requires that within 72 hours of hiring, an employer must determine whether a job applicant is an Indian citizen, registered alien or illegal alien. Applicants who are not eligible to work in this country must not be hired. Employers use the form to identify the status of potential employees. Employers are responsible for ensuring the legitimacy of documents submitted by new employers such as Indian passports, birth certificates, original social security cards and driver's license. Also, employers who hire employees on social visas must maintain appropriate documentation and records.
3) **Equal Employment Opportunity (EEO) and application forms:** an organization should retain all applications and hiring related documents and records for at least three years. Guidelines from the EEOC and court decisions require that the data requested on application forms must be job related. Employers of all types should review their application forms. It must include following information as: *marital status, information on spouse, height/weight, date of high school graduation, number and ages of dependents and contact in case of emergency*. Concern about such questions stems from their potential disparate impact on some protected groups. For example, the question about dependents can be used to identify women with small children, who may not be hired because of a manager's perception that they will be absent more than women without small children. The high school graduation date more closely identifies a person's age, which can be used to discriminate against individuals

over 40. The question about emergency contact might reveal marital status or other protected personal information.

4) **Resumes as applications:** Applicants commonly provide background information through resumes. Technically, a resume used in place of an application form must be treated by an employer as an application form for EEO purposes. Consequently, if an applicant's resume voluntarily furnishes some information that cannot be legally obtained; the employer should not use that information during the selection process. Some employers require that all who submit resumes complete an application form as well. Individuals who mail in resumes may be sent thank-you letters and application forms to be completed and returned.
5) **Bio-data and weighted application forms:** Biographical data on an applicant can be gleaned from the application form, pencil and paper questionnaires, interviews or communications with former employers. It is useful if there are large numbers of people doing the same job, or a large number of applicants for a small number of openings, as with on-line recruitment. In such cases, each data element will receive a score depending on the applicant's response. The scores for each applicant can be added and the highest totals will indicate the applicants most likely to be satisfactory employees. To develop bio-data and weighted application forms, it is necessary to develop questions that can be asked legally and weights that differentiate between satisfactory and poor performance. An employer can use numeric measurements to evaluate applicant's responses and compare them with a valid, job-related set of inquires. This approach is at the heart of many electronic pre-employment screening systems.

3) **Selection testing:** Many kinds of tests may be used to help select good employees. Literacy tests, skill tests, psychological measurement tests and honesty tests the major categories. Carefully developed and properly administered employment tests allow employers to predict which applicants have the ability to do the job in question, who can learn in training and who will stay. Tests are even available to screen out candidates who may create behavioral or other risks to the employer.
4) **Ability tests:** Tests that assess an individual's ability to perform in a specific manner are grouped as ability tests. These are sometimes further differentiated into aptitude tests and achievement tests.
5) **Cognitive ability tests** measure an individual's thinking, memory, reasoning, verbal and mathematical abilities. Tests such as these can be used to determine applicant's basic knowledge of terminology and concepts, word fluency, spatial orientation, comprehension and retention span, general and mental ability and conceptual reasoning. The Wonderlic Personnel Test and General Aptitude Test

Battery (GATB) are two widely used tests of this type. One consideration when using cognitive ability tests is to ensure that the cognitive concepts tested are clearly job related. General mental ability has been found to be a good predictor of job performance. The controversy in the use of general mental ability tests has to do with large difference in the scores of different racial groups. Such tests cost less than personality tests and are highly reliable and the verbal reasoning and numerical tests are valued for a wide range of jobs. However, certain racial minorities score one full standard deviation below non-minorities and that discrepancy could result in adverse impact.

6) **Physical ability tests** measure an individual's abilities such as strength, endurance and muscular movement. At an electric utility, line workers regularly must lift and carry equipment, climb ladders and perform other physical tasks; testing of applicant's mobility, strength and other physical attributes is job related. Some physical ability tests measure such areas as range of motion, strength and posture and cardiovascular fitness. As noted later, care should be taken to limit physical ability testing until after a conditional job offer is made, in order to avoid violation of provision. Different skill-based tests can be used, including psychomotor tests, which measure a person's dexterity, hand-eye coordination, arm hand steadiness and other factors. Such tests as the MacQuarie Test for Mechanical Ability can measure manual dexterity for assembly line workers and others, using psychomotor skills regularly. Many organizations use situational tests, or **work sample tests**, which require an applicant to perform a simulated task that is a part of the target job. Having an applicant for a financial analyst's job prepare a computer spreadsheet is one such test. Requiring a person applying for a truck driver's job to back a truck to a loading dock is another. An **in-basket** test is a work sample test in which a job candidate is asked to respond to memos in a hypothetical in-basket that are typical of the problem faced by people holding that job. The key for any work sample test is the behavioral consistency between the criteria in the job and the requirements for the test.
7) **Situational judgment tests** are designed to measure a person's judgment in work settings. The candidate is given a situation and a list of possible solutions to the problem. The candidate then has to make judgments about how to deal with the situation. Situational judgment tests are an additional form of job simulation.
8) **Personality tests:** As you know, personality is a unique blend of individual characteristics that affects interaction with a person's environment and help to define a person. Many types of personality tests are available. One well-known version is the Minnesota Multiphasic Personality Inventory (MMPI), which was originally developed to diagnose major psychological disorders and has become widely used as a selection test. The Myers-Briggs test is another widely used instrument of the same type. From these and many other personality tests, an

extensive number of personality characteristics can be identified and used. The multitude of different personality traits has long frustrated psychologists, who have argued that there is a relatively small number of underlying major traits. The most widely accepted approach to studying these underlying personality traits often refers to "big five" personality traits. The big five that can be considered generally useful predictors of training success and job performance are *conscientiousness, agreeableness, extroversion, emotional stability and openness to experience*. Of the big five, conscientiousness has been found to be related to job success across most organizations and occupations. Extroversion has been found to predict success in jobs requiring social interaction, such as many sales jobs. The usefulness of the other three traits varies depending on the kind of job and organization. Personality testing can be useful in identifying interpersonal traits needed in jobs and can reveal more information about abilities and interests. However, intrusive questions, lack of face validity and the need to use them with other selection methods can present problems. Such tests have been used to predict many factors including success in training, ability to develop new business and performance on managerial jobs. When used in selection, psychological or personality testing must be solidly related to the job. "Faking" is a major concern for employers using personality tests. Most test publishers do not dispute that test profiles can be falsified and they try to reduce faking by including questions that together constitute a social desirability or "lie" scale. Researchers generally favor the use of "corrections" based on components of the test to account for faking-a preference that also constitutes an argument for professional scoring of personality tests. Honesty/integrity test: Different types of tests are being used by employers to assess the honesty and integrity of applicants and employees. They include standardized honesty/integrity tests and polygraph tests. Employers use these tests for several reasons. Firms such as retailers use honesty tests to screen out potentially dishonest individuals and decrease the incidence of employee theft. These firms believe that giving honesty tests also sends a message to applicants and employees alike that dishonesty will not be tolerated. Honesty/integrity tests may be valid as broad screening devices for organizations, if used properly. However, it is important that the tests be chosen, used and evaluated in ways that ensure that they are and remain valid and reliable. They should be used as one piece of the selection process, along with applications, interviews and other data. One documented concern about integrity tests, as about personality tests, is their "fakability". Research indicates that test takers are more able to fake honesty and pass integrity tests than to falsify profiles on personality tests. Also, the use of honesty/integrity tests can have a negative impact on public relations with applicants. A final concern is that the types of questions asked may constitute invasion of individual privacy. The polygraph test, also known as "lie detector" is a mechanical device that measures a person's galvanic skin response, heart rate and breathing rate. The theory behind the polygraph is that if a person answers a question incorrectly, the body's physiological responses will reveal the falsification through the polygraph's recording mechanisms. As it is not reliable and is not permitted for the organizations to use the test for the process of selection, though it can be used for detection of theft and investigation purposes. Legal concerns and selection testing: Employers must make sure that the selection tests they use are valid, job related and do not discriminate against protected class members. Several court cases have ruled that some tests used by employers, particularly personality tests, are illegally discriminatory. For example, a case study showed that a general knowledge test used by shipping firms and long shore unions was found to discriminate minority applicants who applied for dock shipping jobs, because the failure rates for Hispanic, Asian and African applicants was significantly higher than for other applicants. Altogether, we may say that the role of testing in the selection process must be kept in perspective because tests represent only one possible data and they must be used appropriately and legally.

3) Selection interviewing: Selection interviewing of job applicants is done both to obtain additional information and to clarify information gathered throughout the selection process. Typically, interviews are conducted at two levels: first as an initial screening interview simply to see if the person has minimum qualifications and secondly, as an in-depth interview perhaps involving HR staff members and operating managers in the departments, where the individuals will work. Before the in-depth interview, information from all available sources is pulled together so that interviewers can identify and ask questions about conflicting information that may have emerged from tests, application forms and references. In addition, interviewers must obtain as much authentic information about the applicants as possible during the limited time of the interview itself and evaluate this information against job standards. They range from *structured* to *unstructured* and vary in terms of appropriateness for selection. To be useful, interviews must be reliable, allowing interviewers to pick the same capabilities again and again in applicants. Some interviewers may be better than others at selecting individuals, who will perform well. A high *intra*-rater reliability (*within the same interviewer*), can be demonstrated but only moderate to low *inter*-rater reliability (*across different interviewers*) is generally shown. Inter rater reliability becomes important when each of several interviewers is selecting employees from a pool of applicants or if the employer uses team or panel interviews with multiple interviewers. The interview is popular with employers because it has high "face validity", that is, it seems valid to employers and they like it. It is often assumed that if someone interviews well and the information obtained in the interview is useful, then the individual will perform well on the job. However, research over several decades has consistently confirmed that an unstructured interview is not an especially valid predictor of job performance and success. That is why use of structured interviews has grown in popularity.

A **structured interview** uses a set of standardized questions asked of all applicants. The interviewer asks every applicant the same basic questions, so that comparisons among applicants can more easily be made. This type of interview allows an interviewer to prepare job-related questions in advance and then complete a standardized interviewee evaluation form that provides documentation indicating why one applicant was selected over another. The structured interview is especially useful in the initial screening phase because of the large number of applicants that may need to be considered in this step of the selection process. The structured interview does not have to be rigid. The pre-determined questions should be asked in a logical manner, but interviewers can avoid reading them word for word down the list in a logical manner. Also, the applicant should be allowed adequate opportunity to explain their answers and each interviewer should probe with additional questions until he or she fully understands the responses. Research has showed that structured interview is more reliable and valid than other interview approaches. The structures format ensures that a given interviewer has similar information on each candidate. It also ensures that when several interviewer ask the same question of applicants, there is greater consistency in the subsequent evaluation of those candidates. Structured interviews involve *biographical, behavioral, competency and situational interviews*.

Biographical interview focuses on a chronological exploration of the candidate’s past experiences. This type of interview is widely used and is often combined with situational competency and other forms of information. It combines to the picture of a person by providing a sketch of past experiences. Behavioral interview is an experience based type of structured interview. In the behavioral interview, applicants are asked to give specific examples of how they have performed a certain task or handled a problem in the past. The person that past behaviors are good predictors of future actions provide the logic behind behavioral interviews. Learning about how candidates describe their previous behavior, helps in determining which applicants may be best suited for current jobs.

Competency interview is similar to the behavioral interview except that the questions are designed specifically to provide the interviewer with something to measure the applicant’s response against i.e. the “competency profile” for the position, which includes a list of competencies necessary to do that particular job. Adler, a well known selection expert, is credited with what he calls-the one question interview: “describe your most significant accomplishment”. The answers are expected to reveal the candidate’s competencies in making that achievement. A variation focuses on problems in the interviewing company and how the candidate would solve them. Developing *competency based questions* and *behavioral based questions* are time consuming. Further, competency and behavioral interviews may simply identify, which candidate is the articulate (*fluent/clear*) person or the best at creating a positive impression.

The **situational interview** is a structured interview composed of questions about how applicants might handle specific job situations. Interview questions are based on the job analysis and checked by experts in the job, so that they will be content valid. For some situational interviews, job experts also rate responses to the questions in order to facilitate the ranking of candidates. The interviewer can code the suitability of the answer, assign point values and add up the total number of points an interviewee received. Some situational questions include items like “you are a supervisor and an employee consistently arrives late to work. What actions do you take?”, further if “one of your employees tells you in confidence that she has seen one of her co-workers steal. What do you do?” etc. Research on both behavioral and situational interviews shows that they can predict performance equally well. However, when a descriptively anchored scale for rating answers was added, the behavioral or competency approach was found to have higher validity.

Unstructured or **less structured interviews** are unplanned and without any structure. Often, these interviews are conducted by operating managers or supervisors, who have had little training on interviewing do’s and don’ts. An *unstructured interview* occurs when the interviewer “wings it”, asking questions that have no identified direct purpose, such as, “tell me about yourself”. A *semi structured interview* is a guided conversation in which broad questions are asked and new questions arise as a result of the discussion. In the hands of a professional interviewer trained in the psychology of personality theory, semi structured interviewers have been found to be better than structured interviews for accurately predicting personality. However, personality can also be predicted with a pencil and paper or web based test if necessary.

A **non-directive interview** uses questions that are developed from the answers to previous questions. The interviewer asks general questions designed to prompt the applicant to discuss herself or himself. The interviewer then picks up on an idea in the applicant’s response and uses it to shape the next question. For example, if the applicant says, “one reason that I enjoyed my last job was my supervisor”, the interviewer might ask, “what type of supervisor do you most enjoy working with?” With a non-directive interview, as with any less structured interview, difficulties include keeping the conversation job related and obtaining comparable data on various applicants. Many non-directive interviews are only semi-organized; as a result, a combination of general and specific questions is asked in no set order and different questions are asked of different applicants for the same job.

Comparing and ranking candidates is more open to subjective judgments and legal challenges under this format. This is why it is the best used only in very specific settings.

A **stress interview** is a special type of interview designed to create anxiety and put pressure on applicants to see how they respond. In a stress interview, the interviewer assumes an extremely aggressive and insulting posture. Those who use this approach often justify doing so with individuals who will encounter high degrees of stress on the job, such as consumer-complaint clerks in a department store or air traffic controllers. The stress interview is a high risk approach for an employer. The typical applicant is already somewhat anxious in any interview and the stress interview can easily generate a poor image of the interviewer and the employer. Consequently, an applicant that the organization wishes to hire might turn down the job offer. Even so, many interviewers deliberately put applicants under stress.

In **effective interviewing** mainly three points should be taken into consideration i.e. planning of the interview, control the interview and use of effective questioning techniques.

4) **Background investigation:** Background investigation may take place either before or after the in-depth interview. It costs the organization some time and money, but it generally proves beneficial when making selection decisions. Technology has played an increasing role in helping employers to conduct backgrounds investigations. A background screening has four goals i.e. to show that the employer exercised due diligence in hiring, to provide factual information about a candidate, to discourage applicants with something to hide and to encourage applicants to be honest on applications and during interviews. A comprehensive background checks costs per applicant. A few states have passed laws enforcing limitations on background checking that have made the process more complex and have encouraged employers to hire firms that specialize in checking backgrounds. International background checks present special challenges. The value of background investigation is evident when the investigation reveals that applicants have misrepresented their qualifications and backgrounds. The most common pieces of false information given are length of prior employment, past salary, criminal record and former job title. The only way for employers to protect themselves from resume fraud and false credentials is to get verification on applicants either before or after hire. If hired, an employee can be terminated for falsifying employment information. It is unwise for employers to assume that "someone else has already checked". Too often, that assumption has been proved wrong. **Background information** can be obtained from a number of sources including the following:

- Previous employment records.
- Criminal records.

- Drug tests.
- Education/degree documentation.
- Professional certifications/licenses.
- Motor vehicle records.
- Credit history.
- Honesty tests.
- Social security number.
- Sex offender's lists.
- Worker's compensation records and
- Military records etc.

Personal references such as those from relatives, clergy or friends are of little value and should not even be used. No applicant seeks a recommendation from somebody who would give a negative response. Instead, work related references from previous employers and supervisors should be relied on. Several methods of obtaining information from references are available to an employer with telephoning the reference the most commonly used method. Many experts recommend that employers conducting a telephone reference check use a form focusing on factual verification of information given by the applicant, such as employment dates, salary history, type of job responsibilities and attendance record. Other items often include reasons for leaving the previous job, the individual's manner of working with supervisors and other employees and other more subjective information. Many firms that are called for references will provide only factual information. But the use of the form can provide evidence that a diligent effort was made. The costs of failing to check references may be high. Some organizations have become targets of lawsuits that charge them with negligence in hiring workers, who have committed violent acts on the job. Lawyers say that an employer's liability hinges on how well it investigates an applicant's background. Prior convictions and frequent moves or gaps in employment should be cues for further inquiry.

Negligent hiring occurs when an employer fails to check an employee's background and the employee injures someone. There is a potential negligent hiring problem, when the employer hired an unfit employee who injures others, the employer did an inadequate background check or the employer failed to find facts that would have led to rejection because of potential risk. A related situation, **negligent retention**, occurs when an employer become aware that an employee may be unfit for employment but continues to employ the person and the person injures someone. **Medical information** on applicants may be used to determine their physical and mental capabilities for performing jobs. Physical standards for jobs should be realistic, justifiable and geared to the job requirements. Workers with disabilities can perform satisfactorily in many jobs. However, in many places, they are rejected because of their disabilities, rather than being screened and placed in appropriate jobs. Drug testing and genetic testing may help to inquire about health related issues of a particular person, who is to be employed.

1)Making the job offer: The final step of the selection process is offering someone employment. Job offers are often extended over the phone and many are then formalized in letters and sent to applicants. It is important that the offer document be reviewed by the legal counsel and the terms & conditions of employment be clearly identified. Care should be taken to avoid vague, general statements and promises about bonuses, work schedules or other matters that might change later. These documents also should provide for the individuals to sign an acceptance of the offer and return it to the employer, who should place it in the individual's personnel files.

4.5.6 Staffing Global Assignments

Staffing global assignments involves selecting, placing and locating employees in other countries. The need for individuals who can provide leadership in global organizations emphasizes the importance of global staffing. Global organizations can be staffed in a number of different ways, including with expatriates, host-country nationals and third country nationals. Each staffing option presents some unique HR management challenges. For example, when staffing with citizens of different countries, different tax laws and other factors apply.HR professionals need to be knowledgeable about the laws and customs of each country represented in their workforce. An **expatriate** is a citizen of one country, who is working in a second country and employed by an organization headquartered in the first country. Experienced expatriates can provide a pool of talent that can be tapped as the organization expands its operations more broadly into even more countries. A **host country national** is a citizen of one country, who is working in that country and employed by an organization headquartered in a second country. Host country nationals often know the culture, politics, laws and business customs better than an outsider would. A **third country national** is a citizen of one country, who is working in a second country and employed by an organization headquartered in a third country. For example, an Indian citizen working for a British oil company as a manager in Norway is a third country national.

The **selection process** for an international assignment should provide a realistic picture of life, work and culture to which the employee may be sent. HR managers start by preparing a comprehensive description of the job to be done. This description notes responsibilities that would be unusual in the home nation, including negotiation with public officials, interpreting local work codes and responding to ethical, moral and personal issues such as religious prohibitions and personal freedoms. The five areas are *cultural adjustment, organizational requirements, personal characteristics, communication skills and personal/family concerns*, which must be taken into consideration for a global assignment.

CHECK YOUR PROGRESS 2:

1) What do you understand by selection and various steps in the process of selection?
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2) Describe briefly about staffing for global assignments?

4.5.7 Performance Management

Performance management is a very important Human Resource Management function. Its objective is to improve overall productivity and effectiveness by maximizing individual performance and potential. Performance management is concerned with –

- improving individual and collective performance;
- communicating management's expectations to supervisors and staff;
- improving communication between senior management, supervisors and staff;
- assisting staff to enhance their career prospects through recognizing and rewarding effective performance;
- identifying and resolving cases of underperformance; and
- providing important links to other Human Resource Management functions, such as training.

Key Components

- *motivation*
- *performance appraisal*
- *promotion*
- *guidance and supervision*
- *addressing poor performance*

Motivation

Motivation is in many ways the key to the success of Human Resource Management development. Managers should aim to increase performance through self-motivation, rather than having to use external motivation (i.e. the imposition of rules and continual improvements to conditions of service) to bring about higher standards of performance.

The basic principle underpinning motivation is that if staff are managed effectively, they will seek to give of their best voluntarily without the need for control through rules and sanctions - they will eventually be self-managing.

Some of the most effective ways for managers to motivate staff include giving praise; recognition; and positive feedback; passing on feedback from more senior managers; and letting other staff know which staff have been responsible for praiseworthy work and/or effort. Too often staff experience 'management by mistake', where most of the feedback received is corrective or punitive for mistakes they are perceived to have made. If staff feel that their decisions are generally supported, and when genuine mistakes are made they will be guided in the right direction, they will be more positive, confident and prepared to take on responsibility and decision-making. When staff are shown clear expectations, valued, trusted, encouraged and motivated, then they will be more likely to give of their best.

Performance Appraisal

Performance appraisal assesses an individual's performance against previously agreed work objectives. It serves two functions. First, it enables management to evaluate an individual's performance in the current job to identify strengths and overcome weaknesses. Second, it provides information to assist management plan postings, transfers and promotions. In so doing, management is able to compare performance and potential between officers of the same rank.

Outcomes from staff appraisal should guide other Human Resource Management functions;

- it is a joint responsibility of the individual and the supervisor;
- it is a continuous and ongoing process;
- it should relate individual performance to departmental objectives;
- checks and balances should be built into the system to ensure fairness and objectivity;
- outstanding performance at one rank does not necessarily indicate suitability for promotion to a higher rank.

4.6 PERFORMANCE IMPROVEMENT

Performance improvement is a form of organizational development focused on increasing outputs and improving efficiency for a particular process or procedure. Performance improvement can occur at different levels including the employee level, team level, the division or unit level and the organization as a whole. Quality control is a common form of performance improvement as a means to ensure consistency of output and consistency of performance analysis. The Seven Basic Tools of Quality are used to measure quality and make improvements.

Performance improvement can range from a formal, rigid process conducted at timely intervals to a continuous, software-driven, real-time system that continuously looks at ways efficiency and output can be increased.

TQM

Total quality management is a set of systematic activities carried out by the entire organization to effectively and efficiently achieve company objectives so as to provide products and services at a level of quality that satisfies customers, at the appropriate time and price. It is a holistic approach to long term success that views continuous improvement in all aspects of an organization as a journey and not as a short term destination. It aims to radically transform the organization through progressive changes in the attitudes, practices, structures, and systems. Total quality management transcends the 'product quality' approach, involves everyone in the organization, and encompasses every function-administration, communications, distribution, manufacturing, marketing, planning, training etc.

Coined by the US Naval Air Systems Command in early 1980s, the term "total quality management' has now taken on several meanings includes:

1. Commitment and direct involvement of highest-level executives in setting quality goals and policies, allocation of resources, and monitoring of results.
2. Realization that transforming an organization means fundamental changes in basic beliefs and practices, and that this transformation is everyone's job.
3. Building quality into products and practices right from the beginning-doing things right the first time.
4. Understanding the changing needs of the internal and external customers, and stakeholders, and satisfying them in a cost-effective manner.
5. Instituting leadership in place of mere supervision so that every individual performs in the best possible manner to improve quality and productivity, thereby continually reducing total cost.
6. Eliminating barriers between people and departments so that they work as teams to achieve common objectives.
7. Instituting flexible programmes for training and education, and providing meaningful measures of performance that guide the self-improvement efforts of everyone involved.

The implementation of TQM involves:

- A systematic and long-term commitment, in particular by senior management.
- A commitment to getting things right the first time.
- An understanding of both internal and external customer-supplier relationships.
- An understanding of the total costs involved in the purchase of products and services, e.g., cheap inputs of low quality can cause serious faults in processes and products.
- A commitment to aligning systems to the organizational needs.
- Appropriate management and training techniques to improve communication between sections and between staff and management.
- Meaningful measures of performance to enable workers to understand what they are contributing and how they can improve.

Principles of TQM : The fourteen point of Management of Dr. W.Edward Deming (1982), one of the most prominent in the quality movement, represent for many the essence of TQM:

1. Create constancy of purpose for improvement of product and service.
2. Adopt the new philosophy. (Obstacles must be removed and transformation of organizations is needed.)
3. Cease dependence on mass inspections. (Quality must be designed and built into the processes, preventing mistakes and/ or poor quality rather than having to fix them after they have occurred.)
4. End the practice of awarding business on the basis of price tags alone. (Organizations should establish long-term relationships with (single) suppliers.)
5. Improve constantly and forever the system of production and service. (Management and employees must search continuously for ways to improve quality and productivity.)
6. Institute training. (Training at all levels is a necessity, not an option).
7. Adopt and institute leadership. (Managers should lead not supervise).
8. Drive out fear. (Employees should feel secure enough to express ideas and ask questions.)
9. Break down barriers between staff areas. (Working in teams will solve many problems and improve quality and productivity.)
10. Eliminate slogans, exhortations, and targets for the workforce. (Problems with quality and productivity are caused by the system, not by individuals. Posters and such cause frustration and resentment.)
11. Eliminate numerical quotas for the workforce and numerical goals for people in management. (In order to meet quotas, people will produce poor products and reports.)
12. Remove barriers that rob people of pride of workmanship.
13. Encourage education and self-improvement for everyone.
14. Take action to accomplish the transformation. (Commitment on the part of both management and employees, at all levels, is required.)

Total Quality Management is based on the systems approach to management, namely, that the organization is viewed as a system of interrelated, interdependent parts. Fundamental to TQM is the fact that the organization is the focus of management, not the individual. The objective in TQM is to identify barriers to quality, satisfy internal and external customers, and create an atmosphere of continuous improvement. TQM consists of five major subsystems:

1. A customer focus
2. A strategic approach to operations.

3. A commitment to human resource development
4. A long-term focus
5. Total employee involvement

4.7 FINANCIAL MANAGEMENT

In the business context, finance is defined as the provision of money at the time when it is required. Today, finance has become crux of all problems; therefore the finance manager has to play pivotal role in the process of acquiring, investing and utilization of funds in the organization. Every business organization, whether big, small or medium needs funds to carryout its operation and to achieve organizational objectives. In fact, finance is so indispensable in today’s volatile business environment that is why it is called lifeblood for the business. Paish defines the finance as the provision of money at the time it is wanted. This definition is concerned almost exclusively with the procurement of funds. According Van Horne finance function does not cover only the procurement of funds but also effective utilization of funds in the business. Thus, finance is an activity, which is concerned with acquisition of funds, use of funds and distribution of profits by a business organization.

In the beginning the finance function of a business organization was very simple and easy to management but with the expansion of business activities and change in industrial structure, the finance function has grown so much that it has become difficult to manage it, this has gave the birth to the financial management. In fact, financial management is an appendage of finance function. Today, financial management is recognised as a separate subject and has become the most important branch of business administration.

Financial management is that part of business management which is concerned mainly with raising funds is the most economic and suitable manner; using these funds as profitably; planning future operations; and controlling current performance and future developments through financial accounting, cost accounting, budgeting, statistics and other means. Further, financial management provides the best guide for future resource allocation by a business. Thus, it provides relatively uniform yardsticks for judging most of the organization’s operations and projects. Thus, financial management implies the designing and implementation of certain plan. Plans aim at an effective utilization of funds. As sited by the James Van Horne, planning is an inextricable dimension of financial management. The term financial management connotes that funds flows are directed according to some plan.

Definitions

Financial management has defined by the various authors; a few of the definitions are given below:

According to J.F. Bradlery, "financial management is an area of business management devoted to a judicious used of capital and a careful selection of sources of capital in order to enable a business firm to move in the direction of reaching its goals". Weston and Brigham define as" financial management is an area of financial decision making, harmonizing individual motives and enterprise goals". Howard and Opton take an another view of financial management as "financial management may be defined as that area or set of administrative functions in an organization which relate with arrangement of cash and credit so that the organization may have the means to carry out its objectives as satisfactorily as possible".

From the above-cited definitions, it is clear that financial management is that specialized activity of business, which is responsible for obtaining, and effectively utilization of funds for the smooth conduct of business.

4.7.1 Need of financial management

The evolution of finance has greatly influenced the role and importance of financial management. Finance has changed from primarily a descriptive study to one that encompasses rigorous analysis and normative theory from a field that was concerned primarily with the procurement of funds to one that includes the management of assets, the allocation of capital, and the valuation of the firm in the overall market, and from a field that emphasized external analysis of the firm to one that stresses decision making within the firm Finance today is best characterized as ever changing, with new ideas and techniques. The role of the financial manager is considerably efficient from what it was 20 years ago and from what it will no doubt be in another 20 years. The following points highlight the need of financial management in an organization:

- **Integral Part of Management**: Financial management is an integral part of top management and thereby plays and active role in the determination of financial objectives, policymaking, financial planning financial control and coordination.

- **Research and Development** : Corporate Finance is needed for Research and Development. Today, a company cannot survive without continuous research and development. The company has to go on making changes in its old products. It must also invent new products. If not, it will be get automatically thrown out of the market.

- **Motivating Employees** : Manager and employees must be continuously motivated to improve their performance. They must be given financial incentives, such as bonus, higher salaries, etc. They must also be given non-financial incentives such as transport facilities, canteen facilities (eatery), etc. All this requires finance.

- **Promoting a Company** : Finance is needed for promoting (starting) a company. It is needed for preparing Project Report, Memorandum of Association, Articles of Association, Prospectus, etc. It is needed for purchasing Land and Buildings, Plant and Machinery and other fixed assets. It is needed to purchase raw materials. It is also needed to pay wages, salaries and other expenses. In short, we cannot start a company without finance.

- **Smooth Conduct of Business** : Finance is needed for conducting the business smoothly. It is needed as working capital. It is needed for paying day-to-day expenses. It is needed for advertising, sales promotion, distribution, etc. A company cannot run smoothly without finance.

- **Expansion and Diversification** : Expansion means to increase the size of the company. Diversification means to produce and sell new products. Modern machines and modern techniques are needed for expansion and diversification. Finance is needed for purchasing modern machines and modem technology. So, finance becomes mandatory for expansion and diversification of a company.

- **Meeting Contingencies** : The company has to meet many contingencies. For e.g. Sudden fall in sales, loss due to natural calamity, loss due to court case, loss due to strikes, etc. The company needs finance to meet these contingencies.

- **Government Agencies** : There are many government agencies such as Income Tax authorities, Sales Tax authorities, Registrar of Companies, Excise authorities, etc. The company has to pay taxes and duties to these agencies. Finance is needed for paying these taxes and duties.

- **Divident and Interest** : The company has to pay dividends to the shareholders. It has to pay interest to the debenture holders, banks, etc. It also has to repay the loans. Finance is needed to pay dividends and interest.

- **Replacement of Assets**: Plant and Machinery are the main assets of the company. They are used for producing goods and services. However, after some years, these assets become old and outdated. They have to be replaced by new assets. Finance is needed for replacement of old assets. That is, finance is needed to buy new assets.

4.7.2 Objectives of Financial Management

Firm's financial decisions are a continuous process. In order to make them rationally, the firm must have an objectives or goal. The objective provides a framework for optimum financial decisions making. Objectives/Goal is used in the sense of decision criterion for the decisions involved in financial management. It is a base for analysis. The objective of the firm is to create 'Value for its shareholders.' Value is represented by the market price of the company's common stock, which in turn, is a reflection of the firm's investment, financing and dividend decisions. The idea to acquire assets whose expected return exceeds their cost, to finance with those instruments where is particular advantage, tax or otherwise, and to undertake meaningful dividend policy for shareholders. There are two widely discussed goals \ objectives of the financial management:

- Profit Maximization
- Wealth Maximization

Profit Maximization

The first frequently stated decision criterion for financial management is the profit maximization objective or goal According to this objective, actions that increase profits should be undertaken and that decrease profits are to be avoided. The profit maximization criterion implies that the investment financing and dividend policy decisions of a firm should be oriented to the maximisation of profits. The term *profits* is used in two Senses. In the first sense profit means total profits, i.e., the amount paid to the owners of business in the second sense, it means profitability. Profitability is a situation where output exceeds input. Today, it is used in the second sense. The rationale behind profitability maximisation is that profit is a test of economic efficiency. It leads to efficient allocation of resources. It ensures maximum social welfare. It is a yardstick for measuring performance.

However, the profit maximisation criterion has been criticized on several counts. It is argued that profit maximisation, as a business objective, was developed in the early 19th century, when the business was self-financing characterized by private property and single entrepreneurship. The only air of single owner was to enhance his individual which and persona] power, which could be easily done by profit maximization objective.

The modern business is characterized by limited liability and divorce between management and ownership. Today, business is finance by owners a well as outsiders. There are other interested panic connected with the business, such as customers, employees, government and society. Thus, in this new environment, profit maximization is regard as unrealistic difficult, inappropriate and immoral. It is also feared that profit maximization objective in a market economy may tend to produce goods and services that wasteful and unnecessary from society's point view. It might lead to inequality of income and wealth. Thus, the profit maximising behavior is doubtful to lead to the optimum social welfare. Apart from the aforesaid objections, Profit maximization fails to serve as an operational criterion for maximizing the owners' economic welfare. It fails to provide an operationally feasible measure for ranking alternative courses of action in terms of their economic efficiency. It suffers from the following limitations.

1. **It is vogue:** Profit is a vague and ambiguous concept. It has no precise connotation. It is akin to different interpretations by different people. Profit may be short term or long

term, ii may be total profit or rate of profit, it may be before tax or after tax, and it may be return on total capita! employed or total assets or shareholders equity and so on. Question arises, which of these variants of profit should be a firm try to maximize? If we adopt maximizing earnings per share as financial objective of the firm, it will not ensure the maximization of owners' economic welfare since it ignores timing and risk of expected benefits.

2. It ignores timing of Returns: Because money received today has a higher value than money received next year, a profit seeking organization must consider the timing of cash flows and profits. The profit maximization criterion ignores the timing of benefits. Consider Table – 1

Table: Profits		
Period	Alternative A (Rs.)	Alternative B (Rs.)
I	15000	
II	30000	30000
III	15000	30000
Total	60000	60000

As perprofit maximization objective both the alternatives are equally profitable. However alternative A provides higher returns in earlier years the reterns from alternative B are larger in later years. Hence, the two alternatives are not identical. The profits received earlier from alternative A could be reinvested to earn returns, and hence it is more profitable than alternative B. Thus profit maximization criterion ignores time value of money.

3. It Ignores Risk: More certain the expected return, the higher the quality of benefits. An uncertain and fluctuating return implies risk to the investors but investors are risk taker. However, the return for preference shareholders is more certain than the higher return with uncertainty.

Wealth Maximization

This is also known as value maximization or net present worth maximization is university recognized criterion for financial decision making. As it satisfy all the three requirements, namely enactness, benefits and risk. Wealth maximization criterion is based on the concept of cash flows generated by the decision rather than accounting profit maximization criterion. Cash flow is a precise concept in contrast to accounting profit, which is vague. This criterion considers both quantity and risk of benefits. It also considers the time value of money. As already said, wealth maximization means maximizing the net present value of a course of action, which is the difference between the present value of its benefits and the present value of its costs. The term value here means the worth to the ordinary shareholders. A financial action, which has a positive net present value, creates wealth and hence, is desirable. A financial action resulting in negative net present value should be rejected. Among a number of desirable usually exclusive projects the one with the higher net present value should be adopted.

$$W = \frac{A_1}{(1+k)} + \frac{A_2}{(1+k)^2} + \ldots\ldots\ldots + \frac{A_n}{(1+k)^n} - Co$$

$$\sum_{t=1}^{n} \frac{A_t}{(1+k)^t} - Co$$

Where A1, A2 represent the steam of benefits expected to occur it is course of action is adopted, Co is the cost of that action and k is the appropriate discount rate reflecting both tipping and risk of benefits, W is the net present worth or wealth which is the difference between the present worth of the stream of benefits and the initial cost. The firm should adopt a course of action only when W is positive. Because of the characteristic mentioned above, wealth maximization is superior to the profit maximization as an operational objective. Further, the goals of financial management may be such that they should be beneficial to owners, management, employees and customers. These goals may be achieved only by maximising the value of the firm. The elements involved in the maximisation of the value of a firm are:

Elements of wealth maximisation

Increase in Profits	Reduction in Cost	Judicious choice of funds	Minimised risk	long run value

Advantages of Wealth Maximization

The main advantages of wealth maximisation are:

- The concept wealth maximisation is clear.
- It considers the time value of money.
- It guides the management to frame consistent and strong dividend policy
- The concept of wealth maximisation is universally accepted.
- It considers the impact of risk factor, while calculating the NPV at a particular discount rate; adjustment is being made to cover the risk that is associated with the investments.

4.8 MARKETING

Marketing is a comprehensive term that includes all resources and activities necessary to direct and facilities the flow of goods and services from the producer to consumers in the process of distribution. Marketing is often regarded as a management function concerned with the promotion and sale of products to the end users.

According to Philip Kotler, "Marketing is the analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchange of values with target markets for the purpose of achieving organizational objectives. It relies heavily on designing the organization's offering in terms of the target markets' needs and desires, and on using effective pricing, communication, and distributions to inform, motivate, and service the markets."

The American Marketing Association defines marketing as " the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives".

The main inferences from the above definitions are:

- Marketing attempts to bring voluntary exchanges of goods and service with values.
- Marketing is identified as a process which identifies, expands, and serves the material need of the people.
- Marketing is a managerial process that involves principles of management, like analysis, planning, implementation, and control.
- Marketing is the implementation of carefully formulated programme.

Marketing Mix: Marketing mix is a planned mix of the controllable elements of a product's marketing plan, commonly known as 4 Ps: product, price, place, and promotion. The basic marketing mix is the blending of these four inputs which form the core of the marketing system. Apart from these, service marketing relies upon extra three Ps: people, process, and physical evidence.

1. **Product:** Product is the offer of the marketer to satisfy a need and want. It includes the product variety and assortment, quality, features, style, brand name, packaging, warranties and guarantees, product logos, trademarks, and associated benefits. It can be goods (food, car, house etc.)or a services (food service, car service etc.) or a combination of both.

2. **Place:** Place refers to the distribution of the products to the customers. It involves the movement of the product from the sellers to the buyers, as well as storage at different points to make these available at convenient time and locations to the buyers. Various types of channel members are involved in this process, notably, wholesalers, retailers, specialty operators or event organizers, and so on.

3. **Price:** It is the monetary value of the product. That is what the buyer pays to the seller, including discounts, allowances, credit terms, payment period, etc. Prices

should be such that they create profit. It may be difficult for a new product to earn profit. At the time of a product's introduction, the cost is high and the demand is low. The marketer needs to plan the prices for a long period till the demand picks up and profits can be generated. Price decisions take account of a number of factors throughout the existence of a product in the market.

4. **Promotion:** Promotion refers to all the methods and tools used to give product information to the buyers and persuade them to purchase. It includes advertising, personal selling, public relations, and sales promotion. A suitable combination of these methods of promotion yields good results. Promotion includes decisions on its total plan, placing each method into the plan, deciding details of each method into the plan, deciding details of each method and the tools to be used therein.

5. **People:** People imply the human elements involved in the service experience. The most visible elements are those engaged in exchange, i.e., sellers and buyers. The people employed in the organization decide the quality of services that the customers get. The marketer should understand the contribution of people to the marketing mix and make efforts to enhance the quality of people through proper human resource management practices. The customers are another category of people who decide the service experience through their involvement. The marketers need to know the methods of improving this experience through people.

6. **Process:** Process of service delivery decides the satisfaction of the customers, It includes the procedures, task, schedules, mechanisms, activities, and routine by which a product or service is delivered to the customer. No element of marketing mix can overcome the deficiencies of poor process.

7. **Physical Evidence:** Physical evidence creates tangibility for the intangible services. It portrays an image through physical presence such as buildings, décor, uniform etc. Intangible services are heavily dependent on physical evidence. In creating this evidence the marketers must ensure its compatibility with image of the product.

4.9 SUMMARY

In this unit, we have discussed the concept and importance of organising. Organizing is the function of management which follows planning. It is a function in which the synchronization and combination of human, physical and financial resources takes place. All the three resources are important to get results. When two or more people work together to achieve a group result, it is an organization. Therefore, organizational function helps in achievement of results which in fact is important for the functioning of a concern. After the objectives of an organization are established, the functions that must be performed are determined. Personnel requirements are assessed and the physical resources needed to accomplish the objectives determined. These elements must then be coordinated into a structural design that will help achieve the objectives. The framework for organizing the formal relationships of responsibility, authority, and accountability is known as the organizational structure**.** It provides the means for clarifying and communicating the lines of responsibility, authority, and accountability. There are a number of variations of organizational structure, including line, line and staff, and committee. Organizational structures shall be adaptive to process requirements, aiming to optimize the ratio of effort and input to output. Finally, appropriate responsibilities are assigned. Determining the functions to be performed involves consideration of division of labor; this is usually accomplished by a process of departmentalization. The primary forms of departmentalization are by function, process, product, market, customer, geographical area, or some combination of these forms.

In this unit we have also learnt that motivational theories address different outcome variables. Some, for instance, are directed at explaining turnover, while other focus on productivity. Leadership theories search for the key elements that make leaders effective. Trait theories looked for basic traits whereas contingency theories proposed that the effectiveness of a leader's behavior was contingent on the situation. The situational theories suggested four styles according to the developmental level of the group in terms of competence, commitment and team work.Communication is the process of sharing goal-oriented messages between two or more sources through a medium or media. The various elements in communication are the source, the target, the transmitted message, the received message, the goal of the message and the medium.. Feedback is the most important element requiring special attention.

Both recruitment and selection are important parts of human resource management in an organization. Both the processes are concerned with the supply of manpower for any organization. Recruitment is the initial step for the fulfillment of manpower demands of an organization, which ends up with the final selection and job offer for the suitable candidate for a particular job. It is a process of generating a pool of qualified applicants for organizational jobs. Recruitment involves human resource planning of how, when and what type of employees are needed for an organization and what goals are to be accomplished by them. Moreover, it deals with recruitment presence & image, training, regular & flexible staffing, diversity considerations and recruitment source choices. Recruitment is done through internal, external and web based or internet based modes. On the other hand, selection is the process of choosing individuals with qualifications needed to fill various job positions in an organization. It is a deliberate effort of someone in any firm to choose numerous people from a group of applicants for particular positions.

Selection process involves applicant's job interest, pre-employment screening, application form, test, interview, background investigation, additional interview, conditional job offer, medical examination and job placement. It helps to provide staffing for a particular organization as well as global staffing assignments. This unit will give you an idea about the concepts of recruitment and selection, their processes and implications.

Finance plays an important role in the progress of the business. It keeps the enterprise dynamic. It is, therefore, necessary that there should be proper administration of finance i.e. inflow and outflow of cash should regulated and controlled according to the needs of the firm. Financial management is that specialized activity of business, which is responsible for obtaining, and effectively utilization of funds for the smooth conduct of business. The nature of financial management refers to its functions, scope and objectives. Today, the nature and scope of financial management have gone fundamental changes due to changes in the business environment. Thus, it functions and objectives are directed to meet the today's business requirements. Various aspects of financial management related to concept, definition, typology of finance, financial management objectives, nature, scope and importance have been dealt in this lesson. Moreover, this unit provides conceptual knowledge of financial management to the students so that they may apply the information for taking financial decisions while working in the tourism and hotel industry.

4.10 GLOSSARY

Authority is the right inherent in a managerial position to tell people what to do and to expect them to do it, right to make decisions and carry out actions to achieve organizational goals.

Boundaryless Organisation seeks to remove the **vertical and horizontal boundaries** within the organisation and to break down **external barriers** between the company and its customers and suppliers.

Contingency theory – It suggests that effectiveness of an approach depends on the situation.

Decentralization occurs when a significant amount of authority is delegated to lower levels in the organization.

Delegation is the process that makes management possible because management is the process of getting results accomplished through others. Delegation is the work a manager performs to entrust others with responsibility and authority and to create accountability for results. It is an activity of the organizing function.

Departmentalization is the grouping of related functions into manageable units to achieve the objectives of the enterprise in the most efficient and effective manner.

Divisional structure groups jobs into units according to the similarity of products or markets.

External Communication – When people in the organization communicate with anyone outside the organization.

Financial information system: System that accumulates and analyzes financial data to aid financial management decisions in running a business.

Financial management: Process of financial decision making based on planning, forecasting, organizing, controlling, and communicating financial and physical data to achieve optimum financial and economic benefits from an investment. Financial management may incorporate one or more of the following: managerial accounting, financial accounting, and cost accounting.

Financial market: Market for the exchange of credit and capital in the economy. It is divided into the money market and the capital market.

Financial model: Mathematical model describing the relationships among financial variables of a firm. A functional branch of a general corporate planning model, it is used essentially to generate pro forma financial statements and financial ratios. The basic tool for budget planning, it is also used for risk analysis and "what if" experiments. Many financial models use special modelling languages and spreadsheet programs.

Financial position: The status of a firm's or individual's assets, liabilities, and equity positions as reflected on its financial statement, also called Balance Sheet.

Financial structure: How a firm's ASSETS are financed, constituting the entire right side (liabilities and equity) of the balance sheet. It is broader than capital structure because it also includes short-term debt and all reserves.

Financial sustainability: The assessment that a project will have sufficient funds to meet all its resource and financing obligations, whether these funds come from user charges or budget sources; will provide sufficient incentive to maintain the participation of all project participants; and will be able to respond to adverse changes in financial conditions

Functional structure groups jobs into units based upon similarity of expertise, skills, and work activities, e.g., marketing, accounting.

Horizontal structure has multi-disciplinary/ cross functional self-managed teams (composed of personnel from different functional areas like finance, marketing, human resource, quality control and operations) created to handle the core processes, and each team is entrusted with a core process. It facilitates cooperation, teamwork, and customer orientation rather than a functional orientation.

Hybrid Structure combines aspects of both the functional and divisional forms, with some jobs grouped into departments by functions and other grouped by products or markets.

Hygiene factors include salary, job security, working conditions, organizational policies, and technical quality of supervision.

Internal Communication – When people within the organization communicate with one another.

Inverted Pyramid structure has the customers at the top and gives them the most important role in driving the business. The front-line employees like sales representatives, people in charge of help-desk, etc. who come in direct contact with the customers, are also given a similar position

Line and Staff Organization is developed when staff specialists are added to a line organization to "advise; "serve;" or "support" the line in some manner.

Line Organization is the simplest organizational structure services including direct vertical links between the different levels of the scalar chain.

Matrix structure is amongst the purest of organizational structures and groups employees by both function and product. This structure can combine the best of both separate structures. A matrix organization frequently uses teams of employees to accomplish work, in order to take advantage of the strengths, as well as make up for the weaknesses, of functional and decentralized forms.

Open Door Policy – Under this policy employees are free to approach managers at any time and discuss their problems with them.

Organizational structure refers to the way that an organization arranges people and jobs so that its work can be performed and its goals can be met. When a work group is very small and face-to-face communication is frequent, formal structure may be unnecessary, but in a larger organization decisions have to be made about the delegation of various tasks

Organizing is a function by which the concern is able to define the role positions, the jobs related and the coordination between authority and responsibility.

Project Organisation is separate from and independent of functional departments of the company. When an organisation undertakes a big project or a number of small projects, it creates project organisation(s) for the completion of the same.

Responsibility is the obligation or expectation to perform and carry out duties and achieve goals related to a position.

Scalar principle (chain of command) implies a clear definition of authority in the organization. This authority flows down the chain of command from the top level to the first or lowest level in the organization.

Span of Control refers to the total number of people (subordinates or employees working under) whom a manager or an administrator can effectively control and supervise. The more people under the control of one manager - the wider the span of control. Less means a narrower span of control.

Trait theory – It focuses on physical, social and intellectual traits that distinguish leaders from others.

Vertical organisation is that in which the size of the hierarchical chain of command is long i.e. the number of hierarchical levels are high.

Virtual Organisation is a small, core organisation that outsources major business functions. It is highly centralised, with little or no departmentalisation.

4.11 REFERENCE /BIBLIOGRAPHY

- Lilicrap, D. and Cousins, J.; Food and Beverage Service; Eighth Edition, Hodder Education, London, 2010.
- Davis, B., Lockwood, A. and Stone, S.; Food and Beverage Management; Third Edition, Elsevier, New Delhi, 2008.

- Bhatnagar, S., K.; Managing Food & Beverage Operations, First Edition, Frank Brothers & Co., New Delhi, 2009.
- Bagchi, S., N. and Sharma, A.; Text Book of Food & Beverage Service, Third Edition, Aman Publications, New Delhi, 2012.

4.12 SUGGESTIVE READING

- Singaravelavan, R.; Food and Beverage Service, First Edition, Oxford University Press, New Delhi, 2012.
- Dhawan, V.; Food & Beverage Service; Second Edition, Frank Brothers & Co., New Delhi, 2009.
- Axler, B., H. and Litrides, C., A,; Food & Beverage Service; Wiley, 1990.
- George, B.; Food & Beverage Service and Management; First Edition, Jaico Publications, New Delhi, 2008.
- Bamunuge, H.; Food & Beverage Service; First Edition, Pearson Oxford Heinemann, 2010.

4.13 TERMINAL QUESTIONS

1. What is profit maximisation?
2. Explain wealth maximisation
3. Define finance
4. What are various types of finance?
5. Describe the need of financial management.
6. What do you understand by recruitment and strategic approach to recruitment?
7. What are strategic recruitment decisions and types of recruitment?
8. Explain recruitment, its process and types with suitable examples.
9. Describe the concept of selection and process of selection with suitable examples.
10. Discuss the functions and nature of management.
11. Explain the nature of management process. Why management process is called social and consequential process?
12. What is management? Explain the characteristics of management