

Roll No.

BBA–302

Business Statistics

Bachelor of Business Administration

(BBA-10/12/16/17)

Third Semester, Examination, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B, C. Attempt the questions contained in these Sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. What do you understand by classification ? Explain various methods of classifying statistical data.
2. Define measures of central tendency. Discuss the merits and demerits of mean, median and mode as a measure of central tendency.

(B-61) P. T. O.

3. Calculate the first four moments and kurtosis for the following distribution. Also, comment on the result :

Class	Frequency
3—6	30
6—9	300
9—12	385
12—15	244
15—18	47
18—21	23
21—24	1

4. Explain the various component of a time series. Also, explain the additive and multiplicative models of time series.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. What are the different forms of frequency curve ? Briefly, describe them.
2. The mean height of 30 male workers in a factory is 65 inches and that of 40 female workers in the same factory is 56 inches. Find the average height of all the workers in the factory.
3. When mean = 25.5 and standard deviation = 3.5. Find the coefficient of variation.

4. What is meant by skewness ? Explain the tests of skewness.
5. What do you mean by Karl Pearson's coefficient of correlation ? Also, discuss its properties.
6. What is regression ? Distinguish between correlation and regression.
7. Use the method of least squares to fit a straight line trend. Also, estimate the trend for 2018 :

Year	Sales
2012	12
2013	16
2014	19
2015	22
2016	24
2017	26

8. What is index numbers ? What are the problems faced in the construction of index number ?

Section-C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (1) mark each. All the questions of this Section are compulsory.

Indicate whether the following are True *or* False :

1. The presentation of classified data in a systematic and attractive form is known as tabulation.
2. Circle is a three-dimensional diagram.

3. The algebraic sum of the deviations from mean is maximum.
4. Third quartile is same as 25th percentile.
5. The square of the standard deviation is known as variance.
6. For a positively skewed distribution Mean $>$ Median $>$ Mode.
7. In positive correlation both variable varying in opposite direction.
8. Two regression lines will be perpendicular when $r = 1$.
9. An overall tendency of rise *or* fall in a time series is called seasonal.
10. Fisher's ideal index formula satisfies both, the factor and time reversal test.