

**BBA-302**

**Business Statistics**

Bachelor of Business Administration

(BBA-10/12/16/17/)

Third Semester, Examination 2019

**Time : 3 Hours**

**Maximum Marks : 80**

Note : This paper is of Eighty (80) marks divided into three (03) sections.A,B,and 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 any two (02) questions only.

1. Discuss the importance of classification of data in statistics. Describe five essential parts of a good table.

2. Calculate the value of  $Q_1, Q_3, D_4$  and  $P_{44}$  from the following data:

Weekly Income (Rs.)	500	502	503	504	505	506	507	508	509
No. of workers	8	16	25	40	45	30	22	12	4

3. Define "Measures of Dispersion"? What are the important characteristics of standard deviation?
4. Define the concept time series? Describe models of a time series and how do they differ?

### **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 do you mean by a cumulative frequency distribution? Explain its special advantages and users?
2. What do you understand by measures of central tendency? Discuss its importance.

3. The mean and standard deviation of 100 items were calculated as 50 and 6 respectively. Later, it was found that two values 34 and 56 were wrongly read as 43 and 65 at the time of calculation. Find out corrected mean and corrected standard deviation.
4. From the following series find out the first four moments about mean:

x	20	17	11	7	3
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5. Distinguish Karl Pearson's and Spearman's coefficient of correlation.
6. Define the concept regression. Write down the equations of the regression lines. Under what condition do we have only one regression line?
7. Explain skewness and Kurtosis?
8. Compute a price index for 2018 from the following data by (i) simple aggregate method (ii) average of price relatives using arithmetic mean.

Commodity	A	B	C	D	E	F
Price in 2017 (Rs.)	50	40	30	60	65	45
Price in 2018 (Rs.)	55	48	40	67	68	50

**Section –C**  
**(Objective-type-questions)**

Note : Section 'C' contains ten (10) objectives - Type questions of one (1) mark each. All the questions of this section are compulsory.

**Indicate whether the following are True or False:**

1. 0-5, 5-10 and 10-15 are inclusive classes.
2. Mode can be obtained from histogram.
3. If an observation in a series is Zero, then its G.M. will be zero.
4. Range is the difference between the largest and smallest observations.
5. In a negatively skewed distribution left side has longer tail.
6. The correlation coefficient is the geometric mean of regression coefficients.
7. The independent variable in a regression is also called explained variable.
8. The method of moving averages is useful for determining trend.
9. Laspeyre's index number is also known as fixed base index.
10. The distribution having one mode is called unimodal.

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