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**Roll No. -----**

## **BBA-302**

**Business Statistics (व्यवसायिक सांख्यिकी)**

Bachelor of Business Administration

(BBA-10/12/16/17)

3<sup>rd</sup> Semester, Examination June 2022

Time: 2 Hours

Max. Marks: 80

Note : This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

### **Section – A**

(Long Answer – type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Twenty (20) marks each. Learners are required to answer any two (02) questions only.

[2 x 20 = 40]

P.T.O.

Q.1. Goals scored by two teams in a football session were as follows:

No of Goals Scored	No. of Matches Played	
	Team A	Team B
0	15	20
1	10	10
2	7	5
3	5	4
4	3	2
5	2	1
Total	42	42

Calculate the co-efficient of variation and state which team is more consistent.

Q.2. Define the term 'Statistics'. Explain its characteristics.

Q.3. Discuss the relative merits and demerits of mean, median & mode. Which of the measures do you consider as most satisfactory and why?

Q.4. Calculate Karl-pearsons co-efficient of correlation between birth rate and death rate given below:

Birth rate	Death rate
24	15
26	20
32	22
33	24
35	27
30	24

P.T.O.

- Q.5. What is a time-service? What are its main components?  
Give illustrations for each of them.

## **Section – B**

### **(Short-answer-type questions)**

Note: Section 'B' contains Eight (08) short-answer-type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only.

[4 x 10 = 40]

- Q.1. What do you mean by regression? Why there exists two regression lines?
- Q.2. Which of the following 2 groups is more symmetrical in distribution?  
a) Mean 33, S.D. 10, Median 24  
b) Mean 22, S.D. 12, Median 25
- Q.3. Narrate the mathematical properties of standard Deviation. Why is standard Deviation regarded superior to other measures of dispersion?
- Q.4. Outline in brief the role of statistics in Management.

P.T.O.

- Q.5. Write a note on inter-relationship of Mean, Median and Mode.
- Q.6. State the important characteristics of normal distribution.
- Q.7. A problem of statistics is given to five students A, B, C, D, and E. Their chances to solving it are  $\frac{1}{3}$ ,  $\frac{1}{5}$ ,  $\frac{1}{7}$ ,  $\frac{1}{8}$  and  $\frac{1}{9}$ . What is the probability that the problem will be solved.
- Q.8. A machine produces 5 percent defectives. If five parts are taken at random, what is the probability that 3 will be non-defective.

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