

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**BBA/BBA (Business Economics/RD/SIM) (2018 Batch) (Sem.-2)**

# BUSINESS STATISTICS

**Subject Code : BBA-201-18**

**Paper ID : [75916]**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTIONS-B consists of FOUR Sub-sections : Units-I, II, III & IV.**
3. **Each Sub-section contains TWO questions each, carrying TEN marks each.**
4. **Student has to attempt any ONE question from each Sub-section.**

**1. Write briefly :**

- What is frequency distribution?
- What is the difference between population and sample?
- What is the difference between parameter and statistics?
- What is the difference between descriptive statistics and inferential statistics?
- What are the applications of harmonic and geometric mean?
- What is a non-linear correlation?
- What is the significance of coefficient of determination?
- What is the non-probability sampling?
- What is the meaning of mutually exclusive and collectively exhaustive events?
- What is the difference between correlation and causation?

## SECTION-B

## UNIT-I

2. What are the different sources of data? What are the advantages and disadvantages of it?
3. Discuss the probability sampling techniques.

### UNIT-II

4. What are the different measures of variability? Discuss with the help of suitable example.
5. What is the sampling distribution? What is the significance of it? What is the use of standard error of mean and standard error of standard deviation and how these are calculated?

### UNIT-III

6. What is the partial correlation? Find the partial correlation between X and Z from the following data :

<b>X</b>	21	43	56	19	29	34	40	32	16	18	27	31
<b>Y</b>	6	25	42	27	20	45	33	14	4	31	12	3
<b>Z</b>	5	8	25	9	12	21	14	11	7	16	10	8

7. From the data given in above table, find the effect of X on Y using principle of least square method of regression. Also, interpret the results of it.

### UNIT-IV

8. The below given table exhibits the interviews conducted in the different regions and for different industries. From the data find (a)  $P(C \cup D)$ , and (b)  $P(E \cup A)$

Geographic region					
Industry type		North East (D)	South East (E)	Midwest (F)	West (G)
	Finance (A)	24	10	8	14
	Manufacturing (B)	30	6	22	12
	Communication (C)	28	18	12	16

9. Solve the following problems by using binomial formula :
  - (a) If  $n=7$  and  $p=0.20$ , find  $P(x=0 \text{ to } x=7)$
  - (b) Also find the mean and standard deviation of it.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**