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Total No. of Pages : 02

Total No. of Questions : 09

BBA (Sem.-3)
BUSINESS STATISTICS
Subject Code : BBA-304
Paper ID : [C1167]

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.

SECTION-A

1. Write short note on the following :

- a. What do you mean by Distrust of Statistics?
- b. What is the relationship between Mean, Median and Mode?
- c. Distinguish between simple frequency distribution and cumulative frequency distribution.
- d. What is the difference between Mean Deviation and Standard Deviation?
- e. Define standard error of estimate.
- f. What is the significance of Time Series analysis in business world?
- g. What is the difference between fixed base and chain base index number?
- h. What is factor reversal test of an Index Number?
- i. What are mutually exclusive events?
- j. What do you mean by conditional probability?

SECTION-B**UNIT-I**

2. Define statistics in singular sense and discuss its limitations.
3. Calculate mean and standard deviation of the following data :

x	10	20	30	40	50	60	70
f	6	8	16	15	33	11	12

UNIT-II

4. Calculate the coefficient of correlation by Karl Pearson's method :

x	6	2	10	4	8
f	9	11	5	8	7

5. Explain the concept of regression. Also distinguish between correlation and regression.

UNIT-III

6. Show that Fisher's Ideal Index Number satisfies Time Reversal Test and Factor Reversal Test.
7. Fit a straight line trend by method of least square (taking 1981 as origin) to the following data :

x	1981	1982	1983	1984	1985
y	15	21	25	33	41

UNIT-IV

8. State and prove Multiplication Theorem of Probability.
9. A problem in statistics is given to three students A, B and C whose chances of solving it are $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ respectively. What is the probability that the problem will be solved?