PG – 701

I Semester M.B.A. (Day) Examination, May/June 2025
(CBCS) (2021 – 22 and Onwards)
MANAGEMENT
Paper – 1.4 : Statistics for Management
Equivalent to Paper 1.4 : Statistics for Management (CBCS) (2014 – 15)

Time : 3 Hours | Max. Marks : 70

SECTION – A

Answer **any five** questions. **Each** question carries **five** marks. **(5×5=25)**

1. Define median and discuss its relative merits and demerits. Illustrate your answer with specific example.

2. What is meant by time series analysis ? Discuss its importance in business.

3. 20% of the workers in a firm employing a total of 2,000 workers earn less than Rs. 2 per hour, 440 earn from Rs.2 to Rs. 2.24 per hour, 24% earn from Rs. 2.25 to Rs. 2.49 per hour, 370 earn from Rs. 2.5 to Rs.2.74 per hour, 12% earn from Rs. 2.75 to Rs. 2.99 per hour and the balance Rs. 3 or more per hour. Calculate the modal wages.

4. Calculate co-efficient of correlation between X and Y series from the following data :

Particulars	Series	
	X	Y
No. of pairs of observations	15	15
Arithmetic Mean	25	18
Standard deviation	3.01	3.03
Sum of the squares of deviations from mean	136	138

Summation of product deviations of X and Y series from their respective arithmetic mean is 122.

P.T.O.

5. Calculate Karl Pearson's co-efficient of skewness from the following data :

Wages (x)	125	126	127	128	130	132	133	135	136
No. of workers (F)	5	10	15	40	22	8	10	6	4

6. What do you mean by sampling ? Explain any two types of sampling with its uses in business.

7. Calculate the trend value by the method of least square : A graph is not necessary.

Year	1982	1983	1984	1985
Sales (000'Rs)	10	13	15	02

SECTION – B

Answer **any three** questions. **Each** question carries **ten** marks. **(3×10=30)**

8. What are the different types of diagrams which are used in statistics ? Highlight on the merits and demerits.

9. Jindal Company is currently working with a process which after paying for materials, labour etc. brings a profit of Rs. 12,000. The following alternatives are made available to the company.

   a) The company can conduct a research (R_1) which is expected to cost Rs. 10,000 having 90% chances of success. If it proves a success, the company gets a gross income of Rs. 25,000.

   b) The company can conduct research (R_2) which is expected to cost Rs. 8,000 having a probability of 60% success, the gross income will be Rs. 25,000.

   c) The company can pay Rs. 6,000 as royalty for a new process which will bring a gross income of Rs. 20,000.

   d) The company continues the current process.

   Because of the limited resources, it is assumed that only one of the two types of research can be carried out at a time. Use decision tree analysis to locate the optimal strategy for the company.