

PG – 1079

Paper – 1.4 : STATISTICS FOR MANAGEMENT

Max. Marks : 70

SECTION - A

(5×5=25)

1. In the frequency distribution of 100 families given below, the median is known to be 50. Find the missing frequencies.

2. An analysis of the monthly wages paid to workers in two firms A and B belonging to the same industry that gave the following results.

- Which firm pays the larger amount as monthly wages ?
- In which firm you find greater variability in individual wages ?

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3. What is Correlation Analysis ? List and explain its types and uses.
4. Following data are available in respect of sales and advertisement expenditure.

	Sales	Advertisement Expenditure
Mean	70,000	15,000
Standard Deviation	15,000	3,000

Coefficient of correlation is + 0.8

Find the regression equations.

5. Explain Decision Theory along with its advantages and limitations.
6. Two sample polls of votes for two candidates A and B for a public office are taken, one from among residents of rural area and one from urban areas. The results are given below. Examine, whether the nature of the area is related to the voting preference in this election.

Votes for Area	A	B	Total
Rural	620	380	1000
Urban	550	450	1000
Total	1170	830	2000

7. Explain Bayes theorem and its applications.



SECTION – B

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

8. Explain different methods of sampling with examples.
9. Compute Laspeyres, Paasche's and Fisher's price index number for 2015, using the following data concerning three commodities :

Commodity	2014		2015	
	Price (Rs.)	Quantity (Kg)	Price (Rs.)	Quantity (Kg)
A	15	15	22	12
B	20	5	27	4
C	4	10	7	5

Also show that it satisfies both Time Reversal Test and Factor Reversal Test.

10. A company appoints four salesmen, A, B, C, D and observes their sales in three seasons – summer, winter and monsoon. The figures (in lakhs) are given in the following table :

Season	Salesman				Total
	A	B	C	D	
Summer	36	36	21	35	128
Winter	28	29	31	32	120
Monsoon	26	28	29	29	112
Total	90	93	81	96	360

Carry out an analysis of variance.

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SECTION - C

(1×15=15)

The following observations of weight losses in kgs were recorded for members of each group after this period of 30 days.

Diet Plan 1	Diet Plan 2	Diet Plan 3
4.0	3.6	6.5
3.8	5.2	7.2
3.7	2.8	5.9
6.2	3.0	5.5
5.8	3.8	6.8
4.2	5.0	7.7
	3.9	8.0
	5.5	8.2
		7.0