K26FY1162 Pages: 2 Reg No:.....
Name:.....

Second Semester FYUGP Degree (Reg/Sup) Examination
April 2026
KU2MDCSTA151 - INTRODUCTION TO DATA ANALYSIS
2024 Admission onwards

Time : 1.5 hours Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. Define correlation.
2. How can you identify correlation using scatter plot?
3. List any four properties of a good measure of dispersion.
4. Find range for the following data.

Class	5-15	15-25	25-35	35-45
f	5	15	12	4

5. Explain regression coefficients.
6. What is the relation between correlation coefficient and regression coefficients?
7. Find the mean of first n natural numbers.
8. Define partitional values.

Section B

Answer any 4 questions. Each carry 6 marks.

9. What are the different types of regression? Explain each type with examples.
10. How does correlation differ from regression? State the utility of regression analysis.
11. Find mean of x and y if the 2 regression lines are x+2y-5=0 and 2x+3y=8.
12. Calculate median for the following data.

Marks	13-17	18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57
No. of Students	2	10	14	22	6	4	3	1	1

13. Explain quartiles, deciles and percentiles. Discuss the procedure for calculating them for various types of data.

14. Calculate 7^{th} and 5^{th} deciles for the following data.

Class	0-10	10-20	20-30	30-40	40-50	50-60
f	10	5	8	7	20	15

Section C

Answer any 1 questions. Each carry 14 marks.

15. (a) The coefficient of rank correlation of the marks obtained by 10 students in Statistics and Accountancy was found to be 0.2. It was later discovered that the difference in ranks in the two subjects obtained by one of the students was wrongly taken as 9 instead of 7. Find the correct value of coefficient of rank correlation.
(b) Calculate coefficient of correlation by Spearman's method from the following data:

Roll No.	1	2	3	4	5	6	7	8	9	10
Marks in Statistics	45	56	39	54	45	40	56	60	30	36
Marks in Law	40	36	30	44	36	32	45	42	20	36

16. A class of students scored the following marks: 45, 56, 58, 60, 65, 72, 75, 80, 85, 90. Calculate the range, mean deviation, quartile deviation, and standard deviation. Analyze what these values tell about the dataset.