School of Computing Science and Engineering
Bachelor of Computer Applications
Mid Term Examination - May 2024

Duration : 90 Minutes
Max Marks : 50

Sem II - E1UA202T - Probability and Statistics

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1) Calculate the mode of 2,2,4,4,4,5,-3,-8.   K2 (2)

2) Find the range of 3,2,5,6,7,9,12.   K1 (3)

3) Find the mean of the given frequency distribution from the following data: K2 (4)

Marks	No. of Students
0-4	3
5-9	5
10-14	7
15-19	4
20-24	6

4) Find mean deviation from mean for the following data: K2 (6)

x	1	2	3	4	5	6	7
f	3	5	8	12	10	7	5

5) Find the mode for the following data: K3 (6)

marks	1-5	6-10	11-15	16-20	21-25
No. of Student	7	10	16	32	24

6) For bivariate distribution, Mean of x = 65, Mean of y = 53, S.D of x = 4.7, S.D of y = 5.2, Correlation Coeff= 0.78 Find two regression equations.   K3 (9)

7) The following data is obtained from the survey. Compute H.M.   K4 (8)

Speed of the cars	No. of cars
130	3
135	4
140	8
145	9
150	2

8) Let us consider X for price P and Y for stock S. Then the mean and SD for P is considered as X-Bar = 100 and σx =8 respectively and the mean and SD of S is considered as Y-Bar =103 and σy =4. The correlation coefficient between the series is $r(X, Y)$ = 0.4. Find the line of regression line Y on X

K4 (12)

OR

Calculate the correlation coefficient for the following heights (in inches) of fathers (X) and their sons (Y):

K4 (12)

X: 65 66 67 67 68 69 70 72
Y: 61 68 65 68 72 72 69 71