School of Information Technology and Engineering	
Winter Semester 2022-2023	Continuous Assessment Test – II
Programme Name & Branch	MASTER OF COMPUTER APPLICATION
Course Code: **MAT 5010**	Course Title: **Foundations of Data science**
Class Number(s)	VL2022230500506
Faculty Name(s)	Dr Shashikiran Venkatesha

Open Book Examination.

Exam Duration: 90 Min.   **Maximum Marks: 50**

1.   A die is thrown 9000 times and a throw of 3 or 4 occurred 3240 times. Is the die unbiased? Find the confidence limits for the probability of getting of 3 or 4.

6.03

2.   The following data are got from an investigation.

	No of cases	Mean wages	SD of the wage
Sample 1	400	47.4 rupees	3.1 rupees
Sample 2	900	50.3 rupees	3.3 rupees

-15.25

Find out the two mean wages differ significantly.

3.   Obtain the regression lines for the following data. Also determine the co-efficient of correlation.

0.82

X	22	26	29	30	31	31	34	35
Y	20	20	21	29	27	24	27	31

4.   From the following data, obtain the partial correlation co-efficient $r_{AB.C}$ and $r_{BC.A}$

A   20 15 25 26 28 40 38

B   12 13 16 15 23 15 28

C   13 15 12 16 14 18 14

0.74

-0.5684

5.   Find the multiple correlation co-efficient $R_{1.23}$ for the following.

1:      50 54 50 56 50 55 52 50 52 51

0.5980

2:      42 46 45 44 40 45 43 42 41 42,

3:      72 71 73 70 72 72 70 71 75 71