Vellore-632014, Tamil Nadu, India
Department of Mathematics
School of Advanced Sciences
Fall Semester 2022-2023

Continuous Assessment Test – I

Programme Name & Branch: M.Sc., MCA

Course Code: MAT5007

Course Name: Applied Statistical Methods

Slot: D2

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

General instruction: Answer all questions

Q.No.	Question	Max Marks
1.	Calculate the median and mode for the following frequency distribution: 10	10

Height (inches)	60-62	63-65	66-68	69-71	72-74
Frequency	5	18	42	27	8

Q.No.	Question	Max Marks
2.	The number of telephone calls received at an exchange in 245 successive one-minute intervals are shown in the following frequency distribution:	10

Number of calls	0	1	2	3	4	5	6	7
Frequency	14	21	25	43	51	40	39	12

Calculate the mean deviation about the median and find the standard deviation. 1.49   1.856

Q.No.	Question	Max Marks
3.	The lower and the upper quartiles of a distribution are 14.6 and 25.2 respectively and coefficient of skewness is 0.5. Find the median of the distribution. 17.25	10
4.	Heights (X, in inches) and weights (Y, in kg) of 5 persons are given below:	10

X	64	60	67	59	69
Y	57	60	73	62	68

Determine the correlation coefficient between X and Y. 0.65

Q.No.	Question	Max Marks
5.	Following table consists of marks in Economics (x) and marks in Statistics (y). Find the regression line of x on y. Hence find the most likely marks in Economics when the marks in Statistics is 40. 32.07	10

x	25	28	35	32	31	36	29	38
y	43	46	49	41	36	32	31	30