



QP CODE: 25050813



Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION DECEMBER 2025

First Semester

MSC Data Analytics

Core Courses - ST050106 - PRACTICAL 1

2020 Admission Onwards

E11ADA47

Time: 3 Hours

Weightage: 30

(Answer any **THREE** questions. Each question carries a weight of **10**)

1. Using the given data, find the mean of no. of workers, variance of daily wage, standard deviation of daily wage, skewness and kurtosis of the given data.

Daily wage(in rs.100)	5	6	7	8	9	10	12	15	20
No. of workers	7	9	11	15	21	18	13	4	2

2. Two cricketers scored the following runs in the several innings. Find whether the players performance are same or different. (Use Mann Whitney u test).

Player A	92	17	83	59	72	76	64	45	40	82
Player B	28	27	31	60	59	10	82	14	3	45

3. The following are the ranks obtained by 10 students in commerce and accountancy are given below. Calculate the rank correlation coefficient.

X	6	4	3	1	2	7	9	8	10	5
Y	4	1	6	7	5	8	10	9	3	2

4. Fit a regression model for the following data.

Price (X) : 10, 12, 13, 12, 16, 15

Amount(Y) : 40, 38, 43, 45, 37, 43

5. Find the eigen value and eigen vector of a matrix. Also find its Rank.

$$A = \begin{bmatrix} 76 & 78 & 71 \\ 78 & 63 & 77 \\ 67 & 72 & 85 \end{bmatrix}$$





6. Check whether the given matrix $A = \begin{bmatrix} 1 & -4 & 5 \\ -4 & -2 & 3 \\ 5 & 6 & 8 \end{bmatrix}$ is:

- (a) Positive definite
- (b) negative definite
- (c) Positive semi-definite
- (d) negative semi-definite
- (e) indefinite

