

(4)

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- (i) The card is either a red or an ace  
 (ii) The card is not a king  
 (iii) The card is a king or queen

5. (a) From the given data find the regression coefficients of Y on X : (CO2)

X	Y
25	43
28	46
35	49
32	41
31	36
36	32
29	31
38	30
34	33
32	39

OR

- (b) Discuss the various methods of collecting Primary Data in Statistics. (CO1)

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Roll No. ....

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M. C. A. (FIRST SEMESTER)

MID SEMESTER

EXAMINATION, Nov., 2022

STATISTICAL DATA ANALYSIS WITH R

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) State and prove the Bayes' theorem with example in Probability. (CO2)

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OR

- (b) Find missing frequency from the following data : (CO1)

Class	Frequency
5—10	11
10—15	20
15—20	35
20—25	20
25—30	A
30—35	6

Given mean = 18.1.

2. (a) Discuss the Central limit theorem in Statistics. (CO1)

OR

- (b) Calculate the Rank Correlation for the given data : (CO1)

Marks in Maths	Marks in Statistics
39	47
65	53
62	58
90	86
82	62
75	68
25	60
98	91
36	51
78	84

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3. (a) Differentiate between correlation and regression and discuss the relationship formula between correlation and regression coefficient. (CO2)

OR

- (b) Draw a Pie diagram for the following expenditure : (CO2)

Items	Expenditure
Rural	4,200
Urban	1,500
Health	1,000
Miscellaneous	500

4. (a) (i) 8 coins are tossed at a time, 256 times. Find the expected frequencies of successes (getting a head) and tabulate the result obtained.  
(ii) Also obtained the values of the mean and standard deviation of the fitted distribution. (CO2)

OR

- (b) A single card is drawn at random from a standard deck of 52 playing cards. Find the probability : (CO2)

P. T. O.