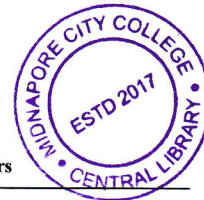


PG CBCS
M.A./M.SC. Semester-II Examination, 2022
(GEOGRAPHY)
 PAPER: GEO 295
(STATISTICAL TECHNIQUES)



Full Marks: 50

Time: 4 Hours

The figures in the right-hand margin indicate full marks.

Attempt all the following questions.

WRITE THE ANSWER FOR EACH UNIT IN SEPARATE SHEET**GEO 295.1****BASIC STATISTICS IN GEOGRAPHY****Full Marks: 25**

1. Calculate the coefficient of correlation between the use of fertilizer and the production of food grain in a district and also determine the equation of straight line which best fits the data. 1×7=7

Chemical Fertilizer Used (in Kg.)	100	110	120	130	140	150	160	170
Production of Food Grain (in Metric Ton)	1000	1050	1080	1150	1200	1220	1300	1360

2. Two cards are drawn from a pack of cards at random. What is the probability that it will be (a) a diamond and a heart (b) a king and a queen (c) two kings? 1×7=7
3. Answer the following questions. 2×3=6
- Distinguish between 'correlation' and 'regression' analysis.
 - Mention the properties of a Normal Curve.
 - Differentiate 'nominal scale' from 'ordinal scale'.
4. Laboratory Note Book and Viva-Voce. 5

GEO 295.2**ADVANCE QUANTITATIVE METHODS****Full Marks: 25**

1. A certain manure was used on four plots of land A, B, C and D. Four beds were prepared in each plot and the manure used. The output of the crop in the beds of plots A, B, C and D is given below:

Output on Plots			
A	B	C	D
8	9	3	3
12	4	8	7
1	7	2	8
3	1	5	2

- Find out whether the difference in the means of the production of crops of the plots is significant or not. 1×7=7

2. The following is a data set of eight values of eight values on income in cattle-farming economy for which farm income (in '000 Rs.), Y, No. of cattle raised in the farms (X_1) and farm size in acres (X_2).

X_1	20	30	40	50	70	90	100	120
X_2	5	3	9	18	5	25	9	6
Y	3.5	7.5	7.0	15.0	11.0	15.0	25.0	27.0

- Estimate the multiple linear regression for these three variables by the (a) least square and (b) matrix solution. 1×7=7

3. Write down the steps of model building in geographical research with suitable example. 1×6=6
4. Laboratory Note Book and Viva-Voce. 5