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3 SEM TDC GGRH (CBCS) C 7

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(Held in January/February, 2022)

GEOGRAPHY

(Core)

Paper : C-7

(Statistical Methods in Geography)

Full Marks : 80

Pass Marks : 32

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following as directed : 1×8=8

(a) In the process of tabulation, for the sake of convenience in computation and comparison the class intervals should be kept equal unless there is some specific reasons against it.

(Write True or False)

(b) When is a frequency curve said to be positively skewed?

(c) Write the formula to find out median for an ungrouped series of data when the series is odd one.

(d) What does it indicate if the value of coefficient of correlation stands at minus (-) 1?

(e) Scatter diagram is a diagrammatic representation of showing relationships between X and Y variables.

(Write True or False)

(f) What will be the maximum and minimum probability of occurrence of head and tail if a coin is tossed five times?

(g) What is the motto of quantification in geographical studies?

(h) Geographical data matrix has spatial component and _____ component.

(Fill in the blank)

2. Write brief notes on the following : $4 \times 4 = 16$

(a) Geographical data matrix

(b) Normal probability distribution

(c) Need of sampling in geographical studies

(d) Centographic techniques

3. What is meant by scales of measurement? Describe different scales of measurement with suitable examples from different sub-fields of geography.

$2 + 12 = 14$

Or

What is quartile deviation? How is it different from measures of central tendency? Calculate the quartile deviation of the following data and interpret your result :

$$2+3+9=14$$

Sl No.	Slope (in Degree)	Area (in sq. km)
1	0-5	122.5
2	5-10	69.8
3	10-15	96.4
4	15-20	111.7
5	20-25	88.5
6	25-30	54.6
7	30 and above	20.8

4. What is meant by measures of dispersion? What are the different measures of dispersion? In conducting a socio-economic survey in a village of a particular community, following information are found :

Sl No.	Size of land holding (in Bigha)	No. of families
1	≤ 3	5
2	3-5	13
3	5-7	10
4	7-9	8
5	9-11	7
6	11-13	5
7	13-15	3
8	15-17	2

Find out the standard deviation and mention its merits and demerits.

$$1+2+7+2+2=14$$

Or

What is meant by measures of central tendency? What are different measures of central tendency? Calculate the mode of the following data and mention its merits and demerits :

$$1+2+7+2+2=14$$

Rainfall (in Inches)	No. of rainy days
11.8-12.6	3
12.7-13.5	5
13.6-14.4	9
14.5-15.3	12
15.4-16.2	5
16.3-17.1	6

5. Why is probability sampling generally preferred in comparison to non-probability sampling? Explain the procedure of selecting a simple random sample.

$$7+7=14$$

6. Calculate Karl Pearson's coefficient of correlation from the data given below :

$$14$$

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