3 SEM TDC GGRH (CBCS) C 7

2 0 2 4

(Nov/Dec)

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) What would be the first step after collection of raw material for any statistical analysis?

   (b) A frequency polygon can be obtained by joining the ____ points of upper sides of the adjacent rectangles of a ____ with straight lines.

   (Fill in the blanks)

(c) The property of the ratio scale is that any two measurements bear the same proportion to each other irrespective of the unit of measurement used.

(Write True or False)

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

(e) Ordinal scale does not depict non-mathematical ideas.

(Write True or False)

(f) What does it indicate if the value of coefficient of correlation stands at +1 or near +1?

(g) What is meant by the term 'universe' or 'population' in sampling technique?

(h) The _____ probability curve is a bell-shaped _____ curve.

(Fill in the blanks)

2. Write brief notes on the following :   4×4=16

(a) Primary sources of data

(b) Stratified sampling and its merits

(Continued)

(c) Nominal measurement of scales

(d) Normal distribution in probability analysis

3. Discuss in detail the importance and significance of statistical methods in geographical studies with suitable examples.   14

Or

What are different sources of data? Describe the components of geographical data matrix with suitable examples.   4+10=14

4. Define quartile deviation. Mention its merits and demerits. Calculate quartile deviation of the following data set at a river gauge station for a particular year and interpret your result :   2+4+7+1=14

Peak flood (in cumec)	Frequency of occurrences (in day)
0–2000	80
2000–4000	67
4000–6000	85
6000–8000	74
8000–10000	38
10000–12000	15
12000–14000	6

(Turn Over)

Or

What do you mean by coefficient of variation (CV)? Mention its merits and demerits. Calculate coefficient of variation of the following data set and interpret your result :

2+4+7+1=14

Districts	Annual Average Rainfall (in cm)
A	500
B	240
C	350
D	120
E	85
F	290
G	405
H	80
I	320
J	220
K	150
L	190

(*Continued*)

5. Define mode. How is it calculated for ungrouped data? Mention how it is different from mean. Calculate mode of the following data set :

2+2+2+8=14

Monthly income (in ₹)	No. of families
10,000–15,000	40
15,000–20,000	38
20,000–25,000	29
25,000–30,000	20
30,000–35,000	23
35,000–40,000	34
40,000–45,000	14
45,000–50,000	12
50,000–55,000	8

Or

What is sampling? Describe random sampling technique. Write in brief about the need of sampling in geographical data analysis.

3+5+6=14

(*Turn Over*)

6. What is simple linear regression? Find out the regression equation of the following data set and draw the regression line :   3+9+2=14

District Code	HYV seeds (in Qtls) (X)	Yield (in Qtls/ha) (Y)
A–01	20	3·5
B–02	30	7·5
C–03	40	7·0
D–04	50	15·0
E–05	70	11·6
F–06	90	14·5
G–07	100	20·4
H–08	110	22·8
I–09	120	26·2
J–10	130	29·0

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