3 SEM TDC GGRH (CBCS) C 7

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(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) Statistical techniques are concerned with the collection, organization, analysis and explanation of observational form arising out of the study of distribution and location of various characteristics on the surface of the earth.

    (Write True or False)

(*Turn Over*)

(b) Prof. Saroj K. Pal / Prof. P. C. Mahalanobis / Sir R. A. Fisher is considered to have been the 'father of Indian statistics'.

(Choose the correct answer)

(c) When is a frequency curve said to be negatively skewed?

(d) The maximum and minimum value of coefficient of correlation lie between _____ and _____.

(Fill in the blanks)

(e) In case of extreme distribution, arithmetic mean does not give a distorted picture of the distribution and remains representative of the distribution as a central value itself.

(Write True or False)

(f) A nominal scale of measurement generally deals with _____ variables.

(Fill in the blank)

(g) Probability can be viewed as partial information either known or presumed to be known prior of an event.

(Write True or False)

(h) Write the formula for a straight line equation in regression analysis.

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

(a) Uses of data in geographical studies

(b) Random sampling and its necessity

(c) Ordinal measurement of scales

(d) Probability distribution

3. What is meant by geographical data matrix? What are its salient features? What are the components of geographical data matrix? Illustrate your answer assuming a hypothetical parameter of your own.

2+2+2+8=14

Or

What are meant by primary data and secondary data? What are the methods of collection of data? What is tabulation? Mention its features. Prepare a frequency table of incomes of 50 families with suitable interval of own choice and prepare a more than and less than Ogive frequency curve.

2+2+2+2+6=14

(4)

4. What are meant by decile and percentile? Mention how decile and percentile are related to median. Calculate 7th decile and 79th percentile of the following data set :

4+2+4+4=14

Population size	0–5000	5000–10000	10000–20000
No. of towns	278	800	795

Population size	20000–50000	50000–100000	Above 1 lakh
No. of towns	484	150	125

Or

What is meant by measures of central tendency? What are the different measures of central tendency? Mention comparative merits and demerits of any two measures of central tendency. Find out the mode of the following distribution :

2+2+4+6=14

Daily income (in ₹)	No. of families
< 600	53
600–650	81
650–700	114
700–750	195
750–800	63
800–850	32
850–900	20
900–950	11
950–1000	8
1000–1050	3

5. What do you mean by mean deviation? Write the formula to find out mean deviation for ungrouped data. Mention its merits and demerits. Compute mean deviation about mean for the data set given below :

2+1+4+7=14

Rainfall (in cm)	No. of rainy days
118–126	3
127–135	6
136–144	10
145–153	12
154–162	4
163–171	7

Or

What is sampling? What are different methods of sampling? Illustrate any two methods of sampling. Write in brief about need of sampling in geographical data analysis.

2+5+5+2=14

6. What is coefficient of correlation? Calculate coefficient of correlation using Spearman's rank correlation of the data set and interpret your result : 2+10+2=14

Village Code	% of SC to total population	% of marginal workers to total workers
A–01	2·8	38·9
B–02	8·6	33·7
C–03	1·8	40·6
D–04	4·8	22·0
E–05	4·8	29·5
F–06	2·0	4·9
G–07	6·7	37·6
H–08	2·2	2·6
I–09	5·5	28·2
J–10	7·3	33·2

★ ★ ★