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3 (Sem-3/CBCS) GGY HC 3

2023

GEOGRAPHY

(Honours Core)

Paper : GGY-HC-3036

(Quantitative Methods in Geography)

Full Marks : 60

Time : Three hours

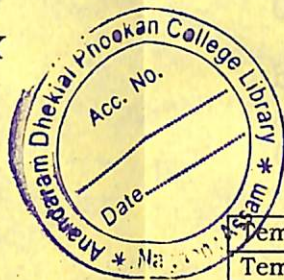
The figures in the margin indicate full marks for the questions.

1. Answer the following objective type questions : $1 \times 7 = 7$

- (a) What is data ?
- (b) You obtained a sample data which is relatively normally distributed. Which measure of central tendency would you use to calculate the average value of the same ?
- (c) Mention any one of the Relative Measures of Dispersion.

Contd.

- (d) Name the method where the researcher divides a population into relatively similar subpopulations and obtains a representative sample.
- (e) If r is the simple correlation coefficient, the quantity r^2 is known as _____.
- (f) The slope of regression line of Y on X is also called _____.
- (g) Student's t -test was designed by
- R. A. Fisher
 - Wilcoxon
 - Wald-Wolfowitz
 - W. S. Gosset



2. Answer the following very short answer type questions : 2×4=8
- What is the objective of sampling techniques?
 - If in an asymmetrical distribution median is 28 and mean is 31, what will be the value of mode?
 - What is correlation?
 - What are the main objectives of time series analysis?

3. Answer the following short answer type questions : **(any three)** 5×3=15

- What is the best measure of dispersion, and how? If the mean and coefficient of variation of a data set are 15 and 48 respectively, then find the value of standard deviation.
- The temperature of two cities A and B in a winter season are given below. Find which city is more consistent in temperature changes?

Temperature of city A in degree Celsius	18	20	22	24	26
Temperature of city B in degree Celsius	11	14	15	17	18

- Write a note on how Regression Analysis is useful in geographical data analysis.
 - Write briefly about the nature and sources of geographical data.
 - Explain the Moving Average method of Time Series Analysis.
4. Answer the following questions : **(any three)** 10×3=30
- With suitable examples, discuss the different types of levels of data measurement. Also mention their basic characteristics. 5+5=10

(b) What are different measures of dispersion? Discuss the utility of these measures in geographical studies.

2+8=10

(c) What is meant by quantification? Discuss its significance in geographical studies.

2+8=10

(d) What is Time Series? Why do we need to analyse Time Series data? Discuss with examples.

1+3+6=10

(e) What is Central Tendency? What are its common measures? Stating the reason for choosing, calculate the most representative value of Central Tendency for the following data :

2+2+6=10

The size of land holding of 380 families in a village of Assam

Size of land Holding (in acres)	Less than 100	100-200	200-300	300-400	400 and above
Number of Families	40	89	148	64	39

(f) What is sampling? Discuss the various methods of sampling used by the geographers.

2+8=10