

Your Roll No.....

Sr. No. of Question Paper: 11062

Unique Paper Code: **2193010011**

Name of the Paper: Research Methods in Geoscience

Semester: VII

Programme: B.Sc. (Hons.) Geology (NEP), IV Year

Duration: 3 Hrs.

Maximum Marks: 90

Attempt any five questions. All questions carry equal marks.

Question 1. Discuss the main types of research and their importance in solving geological problems with examples.

Question 2. What is a research hypothesis? Describe the key steps involved in testing a hypothesis in geoscience research.

Question 3. Explain how the main objectives and sub-objectives of a geological research project are defined. Give a detailed example.

Question 4. Describe the types of field and laboratory data used in geoscientific research and discuss how such data are synthesised in the thesis.

Question 5. Explain the major steps in geological fieldwork and describe the methods used for collecting representative samples.

Question 6. Discuss the role of petrographic and geochemical analytical techniques in geological investigations.

Question 7. Write short notes on the followings:

- a) Correlation and regression in geological data analysis
- b) Factor analysis and cluster analysis
- c) Standard Deviation

Question 8. Write short notes on any three of the followings:

- a) Referencing and bibliography
- b) Plagiarism and ethics in research
- c) Writing of conclusions and recommendations
- d) Review of previous research articles