Roll No. ....

CMDQ/M-24 **5571**

COMPUTATIONAL AND STATISTICAL METHODS IN GEOLOGY

Paper–GT-405

Time Allowed : 3 Hours]   [Maximum Marks : 100

Note : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Write notes on the following: 4×5=20

    (a) Computer Hardware.

    (b) Numerical integration by trapezoidal method.

    (c) Utility of google-earth software in understanding earth features.

    (d) Linear regression.

UNIT–I

2. Discuss in detail role of mathematical and numerical techniques in Geo-sciences.   20

3. Write notes on the following:

    (a) Importance of qualitative and quantitative data in the field of geology.

    (b) Application of computer in general database of geology.   20

UNIT–II

4. Write detailed note on uses of different data handling softwares in Geo-sciences, give special view on spreadsheets.   20

5. Write notes on the following:

    (a) Protecting worksheets, sorting and filtering data.

    (b) Type of data, Functions and formulas.   20

UNIT–III

6. Write a detailed note on different types of graphs and their importance in Geosciences.   20

7. Write notes on the following:

    (a) Linear graphs, 2D and 3D graphs.

    (b) Data types, expressions and statements.   20

UNIT–IV

8. Justify the requirements of different statistical techniques in Geosciences.

9. Write notes on the following: 20

    (a) Measures of Skewness & Kurtosis in Geosciences.

    (b) Regression analysis, linear regression, correlation and correlation coefficients.