

Roll No.

Total Pages : 2

CMDQ/D-23

5223

**GEOSCIENTIFIC INSTRUMENTATION
ANALYTICAL TECHNIQUES**

Paper–GT–905

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 short notes on the following :

- (a) Photography in Geoscience.
- (b) Crushing and pulverising.
- (c) Sample etching and staining.
- (d) Thermoluminescence.
- (e) Data acquisition.

UNIT-I

2. Discuss various techniques of Photography in Geosciences.

3. Write notes on the following :

- (a) Importance of Sophisticated instruments in Geosciences.

- (b) Evolution with technological developments in geosciences.

UNIT-II

- 4. Describe the techniques for preparation of Microfossil slides.
- 5. Write brief on the following :
 - (a) Image interpretation and classification techniques in Remote Sensing.
 - (b) Grinding and polishing.

UNIT-III

- 6. Discuss grain size analysis techniques.
- 7. Write brief notes on the following :
 - (a) Atomic Absorption Spectrophotometry.
 - (b) ICP-Mass spectrometry.

UNIT-IV

- 8. Discuss rooftop rainwater harvesting techniques in detail.
- 9. Write brief on the following :
 - (a) Triaxial test.
 - (b) Principles of Seismic survey