

[This question paper contains 3 printed pages]

Your Roll No. :

Sl. No. of Q. Paper : **5624** **I**

Unique Paper Code : 2193010010

Name of the Paper : Exploration Geology

Name of the Course : **B.Sc.(Hons.)
Geology (NEP)**

Semester : VI

Time : 3 Hours **Maximum Marks : 90**

Instructions for Candidates :

- (a) Write your Roll No. on the top immediately on receipt of this question paper.
- (b) Attempt any **five** questions in **all**. **All** Questions carry equal marks.

1. Write notes on

- (a) Bore hole survey
- (b) Core recovery and preservation
- (c) Primary and secondary dispersion haloes

P.T.O.

2. Describe briefly :
 - (a) Estimation of grade
 - (b) Seismic reflection and refraction method of surveying
 - (c) Channel sampling and trench sampling
3. Giving examples, discuss how classification of mineral deposits can be done based on single or multiple criteria that may help in formulation of appropriate and successful exploration programs.
4. Briefly describe the utility of geophysical methods in prospecting of mineral deposits. Discuss, in detail, resistivity and seismic method with examples and sketches.
5. Answer the following :
 - (a) What are the principles of reserve estimation ?
 - (b) Describe reserve estimation by
 - (i) polygon method
 - (ii) triangulation method

6. What are the criteria of UNFC scheme of classification ? Describe how each of these is used in codifying and quantifying ore deposits.
7. What are the types of motions on which drilling techniques are based ? Describe briefly the methods and uses of
 - (i) Percussion drilling
 - (ii) Diamond drilling
8. What is geochemical anomaly ? Explain briefly pedo-geochemical survey and litho-geochemical survey.
