

October 2025
B.A./B.Sc.
Fifth Semester
DISCIPLINE SPECIFIC ELECTIVE – 1
GEOLOGY
Course Code: GLD 5.11
(Exploration Geology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Describe the differences in prospecting and exploration. Explain the detailed method adopted in exploration. 14

2. Write a note on each of the following: 7×2=14
 - (a) Concepts of prospecting and exploration
 - (b) Reconnaissance (G4 Stage) and detailed exploration (G1 Stage)

UNIT-II

3. Elaborate on the methods of sampling. Give the application of remote sensing in exploration. 14

4. Write a note on each of the following: 7×2=14
 - (a) Geochemical exploration
 - (b) Magnetic methods in geophysical prospecting

UNIT-III

5. What is ground core logging? Explain the processes in ground core logging. 14

6. Write a note on each of the following: 7×2=14
 - (a) Core drilling
 - (b) Non-core drilling

UNIT-IV

7. Give the principles of reserve estimation. Elaborate on the factors affecting reliability of reserve estimation. 14
8. Write a note on each of the following: 7×2=14
- (a) Error in reserve estimation
 - (b) Triangular blocks models in reserve estimation

UNIT-V

9. Explain the principles of mineral economics. 14
10. Write a note on any two of the following: 7×2=14
- (a) Marine mineral resources
 - (b) Domestic mineral policies
 - (c) Laws of the sea
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