

**2022**  
**B.A./B.Sc.**  
**Fifth Semester**  
DISCIPLINE SPECIFIC ELECTIVE – 1  
**GEOLOGY**  
*Course Code: GLD 5.11*  
(Exploration Geology)

*Total Mark: 70*  
*Time: 3 hours*

*Pass Mark: 28*

*Answer five questions, taking one from each unit.*

**UNIT-I**

1. Describe the concept and methodology of prospecting and exploration. 14
2. Write notes on the following: 7×2=14
  - (a) Stages of prospect and exploration
  - (b) Principles of mineral exploration

**UNIT-II**

3. Write an account on seismic and radioactive prospecting method. 14
4. Write notes on any two of the following: 7×2=14
  - (a) Geological mapping in exploration
  - (b) Gravity prospecting methods
  - (c) Geochemical exploration

**UNIT-III**

5. Explain core drilling methods with diagrams. 14
6. Write notes on the following: 7×2=14
  - (a) Planning of boreholes
  - (b) Location of boreholes on ground core logging

## UNIT-IV

7. What is reserve estimation and errors? Explain the different factors affecting reliability of reserve estimation. 4+10=14
8. Write notes on the following: 7×2=14
- (a) Density and bulk density
  - (b) Polygon method of reserve estimation

## UNIT-V

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