

**2023**  
**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. Define prospecting and exploration. Explain the stages of exploration. 2+2+10=14
2. Discuss about the principles of mineral exploration. 14

**UNIT-II**

3. Define sampling and describe the various sampling methods. 2+12=14
4. Write notes on the following: 7×2=14
  - (a) Remote sensing in mineral exploration
  - (b) Magnetic method

**UNIT-III**

5. Explain non-core drilling method with diagrams wherever necessary. 14
6. Discuss in detail about the different procedures involved in core logging. 14

**UNIT-IV**

7. Explain the different methods of triangular and polygonal reserve estimation. 14

8. Write notes on the following: 7×2=14  
(a) Principles of reserve estimation.  
(b) Square or rectangular methods of reserve estimation

### UNIT-V

9. Discuss about the different marine mineral resources. 14
10. Write notes on the following: 7×2=14  
(a) Strategic and critical minerals  
(b) National mineral policy 2019
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