

**2022**  
**B.A./B.Sc.**  
**First Semester**  
CORE – 2  
**GEOLOGY**  
*Course Code: GLC 1.21*  
(Mineral Science)

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

*Pass Mark: 28*

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

**UNIT-I**

1. Discuss in detail the different elements of crystal symmetry. 14
2. Write notes on the following: 7×2=14
  - (a) Prism and pyramid
  - (b) Crystal parameters and indices

**UNIT-II**

3. Discuss in detail the normal class of isometric crystal system. 14
4. (a) Define crystallographic axes and give the symmetry elements of orthorhombic system. 7  
(b) Explain the forms of tetragonal crystal system. 7

**UNIT-III**

5. Explain with examples the different types of solid solutions in minerals. 14
6. Write notes on the following: 7×2=14
  - (a) Mineral fracture
  - (b) Phyllosilicate structure

## UNIT-IV

7. Write a detail account on Feldspar family. 14
8. Write notes on the following: 7×2=14
- (a) Silica group
  - (b) Garnet group

## UNIT-V

9. Discuss in detail ordinary and polarized light. 14
10. Write short notes on any two of the following: 7×2=14
- (a) Extinction
  - (b) Twinning
  - (c) Refractive index
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