

**2023**  
**B.A./B.Sc.**  
**First Semester**  
GENERIC ELECTIVE – 1  
**GEOLOGY**  
*Course Code: GLG 1.11*  
(Essentials of Geology)

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

*Pass Mark: 28*

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

**UNIT-I**

1. What are the key differences between a terrestrial planet and Jovian planet? Why do these differences exist in the solar system? 7+7=14
2. How does the planetesimal hypothesis explain planetary formation? Discuss. 14

**UNIT-II**

3. What are the primary layers of Earth's atmosphere? Explain its characteristics. 7+7=14
4. Explain the internal structure of the Earth with a neat sketch. 14

**UNIT-III**

5. What is orogenesis? Explain the theories that relate to the formation of mountains. 2+12=14
6. Write notes on the following: 7×2=14
  - (a) Convergent and divergent plate boundaries
  - (b) Tetrahedral hypothesis

## UNIT-IV

7. How do volcanoes form? Explain the different types of volcanoes. 4+10=14
8. Write notes on the following: 7×2=14
- (a) Mercalli scale
  - (b) Convection in the Earth's core

## UNIT-V

9. Explain the different methods for determining the age of the Earth. 14
10. Write notes on the following: 7×2=14
- (a) Radioactivity
  - (b) Geological time scale
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