

Geology

Paper-II

Time Allowed: Three Hours

Maximum Marks: 300

- Note:* 1. The figures in the margin indicate full marks for the questions.
2. Candidate should answer questions No. 1 and 5 which are compulsory and any **three** of the remaining questions, selecting at least **one** from each section.

SECTION – A

1. Write short notes on any **three** of the following in about **200** words each:
20×3=60
 - (a) Orthorhombic system.
 - (b) Crystal defects.
 - (c) Classification of silicate structures.
 - (d) Bowen's reaction series.
2. (a) Write notes on Diopside–Anorthite system. 30
(b) Write notes on the types of igneous textures and its significance. 30
3. (a) What is sedimentary environment? Give classification of depositional sedimentary environments. 30
(b) What are the metamorphic facies? Describe the granulite facies rocks. 30
4. Describe in brief of any **three** of the following: 20×3=60
 - (a) Miller Indices.
 - (b) Origin of Carbonatites.
 - (c) Agents of Metomorphism.
 - (d) Isotope studies.

SECTION – B

5. Write short notes on any **three** of the following in about **200** words each: 20×3=60
- (a) Classification of ore deposits.
 - (b) Geology of lead and zinc ore deposits of India.
 - (c) National Mineral Policy of India.
 - (d) Environmental impact of urbanization.
6. Geophysical prospecting for ground water exploration. 60
7. Write in brief about the following: 30×2=60
- (a) Marine mineral resources.
 - (b) Seismic zones of India.
8. Write in brief about the following: 30×2=60
- (a) Applications of trace and rare earth elements.
 - (b) Radioactive waste disposal.