

[This question paper contains 4 printed pages.]

**Your Roll No.....**

**Sr. No. of Question Paper : 1061**

**I**

Unique Paper Code : 2192013501

Name of the Paper : Economic Geology

Name of the Course : **B.Sc. (H) Geology, III Year**

Semester : V

Duration : 3 Hours

Maximum Marks : 90

**Instructions for Candidates**

1. Write your Roll. No. on the top immediately on receipt of this question paper.
2. Attempt **any five** questions
3. **All** questions carry equal marks.

1. Write short notes on the following (4.5x4=18)

(a) Critical minerals and essential minerals

P.T.O.

(b) Chromite deposits of India

(c) Assay value and Grade of ores

(d) Structural traps

2. Write short notes on the following (3x6=18)

(a) Supergene ore-forming process

(b) Why are hydrothermal fluids suitable solvents for scavenging and transporting metals effectively?

(c) Magma differentiation process in formation of magmatic ore deposits

3. Differentiate between the following terms: (3x6=18)

(a) Liquid immiscibility and Fractional crystallization

(b) Mesothermal and Epithermal deposits

(c) Propylitic and Argillic alteration

4. Throw light on the source, pathway, and trap mechanism for forming ore deposits. (1x18=18)
5. Compare and contrast VMS and SEDEX deposits with suitable diagrams and examples. (1x18=18)
6. Give an account of Manganese deposits in India concerning mineralogy, mode of occurrence, uses, and geographical distribution. (1x18=18)
7. Describe how metamorphism can enrich the value or grade of existing mineral deposits. Cite examples. (1x18=18)

8. What are the different types of gold deposits?  
Characterize the gold deposits formed during the  
Archean and Proterozoic times. (1x18=18)