

## THIRD SEMESTER

## Geology

## Paper I — ECONOMIC GEOLOGY, MINERAL ECONOMICS &amp; GEMOLOGY

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

## PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Cavity filling.
2. Magmatic concentration.
3. Syngenetic and Epigenetic Deposits.
4. State the ore minerals of chromium.
5. Name the two minerals which form bronze alloy. Add their distribution.
6. Name the nickel bearing minerals.
7. Inclusions in gem varieties of corundum.
8. Use of Polariscope in gem identification.

## PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Explain the economic importance of hydrothermal deposits.

Or

10. Write on the mode of occurrence, origin and distribution of copper. Add a note on its uses.
11. Write a note on metallogenic provinces in relation to plate tectonic environment.

Or

12. Explain in brief geological conditions and mode of occurrence of abrasive minerals in India.

13. Discuss and describe the contents of National Mineral Policy.

Or

14. Explain the conservation of mineral resources, scope and their limitations.

15. Briefly explain the origin and occurrence of economically important gem variety precious stones, with Indian examples.

Or

16. Describe Garnet gem species with respect to its colour wise varieties, chemicals composition, physical and optical properties, characteristic inclusions and occurrence.

