Roll No. 24-GE-41

## M.Sc. IV SEMESTER [MAIN/ATKT] EXAMINATION JUNE - JULY 2024

## **GEOLOGY**

## Paper - I

## [Mining and Mineral Dressing]

[Max. Marks: 75] [Time: 3:00 Hrs.] [Min. Marks: 26]

**Note:** Candidate should write his/her Roll Number at the prescribed space on the question paper. Student should not write anything on question paper.

Attempt five questions. Each question carries an internal choice.

Each question carries 15 marks.

Q. 1 Describe classification of mining methods.

OR

Describe open pit mining methods with appropriate example and diagrams.

Q. 2 Explain room and pillar coal mining method with diagrams. Also write their advantages and disadvantages.

OR

What do you understand by ocean bottom deposits? Describe in brief ocean bottom mining methods.

- Q. 3 Write note on the following
  - i) Subsidence in mine excavation.
  - ii) Mine ventilation and illumination.

OR

Write notes on the following -

- i) Methods of Breaking rocks.
- ii) Explosive used in mining.
- Q. 4 Describe ore microscopy and its contribution to ore dressing techniques.

OR

Write notes on the following -

- i) Ore dressing and its importance.
- ii) Screening used in ore dressing.

Q. 5 Describe magnetic and electrostatic separation techniques of concentration process.

OR

Write notes on the following -

- i) Amalgamation process.
- ii) Beneficiation flow sheet of ores of copper.
- iii) Role of Bacteria in Beneficiation of lean grade ores.

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