

M.SC. (Geology) Fourth Semester Old Course
MSC2483 - Paper-III -Mining Geology & Mineral Exploration

P. Pages : 2

Time : Three Hours



GUG/W/18/2382

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat sketches wherever necessary.

1. Describe in detail on physiographic and lithologic guides in the location of ore deposits.

OR

Write short notes on:-

- a) Geological work at an operating mine.
- b) Intersecting loci and ringed targets.
- c) Dislocated ore bodies. and their location.
- d) Persistence of ore in depth.

2. Write a detail account of geological modelling for mineral exploration with specific examples of Indian mineral deposit.

OR

Write short notes on.

- a) Trenching.
- b) Drilling.
- c) Types of drill patterns.
- d) Methods in outlining the ore body.

3. Write in detail on geochemical environments with special emphasis on mobility and distribution in dispersion of elements in primary and secondary environment.

OR

Write short notes on:-

- a) Geochemical exploration practices in glacial environments.
- b) Lithogeochemical method of exploration.
- c) Hydrogeochemical method of exploration.
- d) Designing exploration models for search of different type of mineral deposits.

4. Describe in detail on resistivity method of geophysical survey.

OR

Write short notes on:-

- a) Gravity field surveys.
- b) Preparation of gravity anomaly maps.
- c) Principle and instrumentation of magnetic method.
- d) Field procedure and application of radioactivity method.

5. Write short notes on:-

- a) Mineralogic guides.
- b) Structural guides.
- c) Panning.
- d) Pitting.
- e) Geobotanical methods.
- f) Atomogeochemical methods.
- g) Instruments used in radioactivity method.
- h) Magnetometer.
