

Roll No. : .....

Total No. of Questions : 11 ]

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# **BPF-2215**

**M.Sc. (Final) Examination, 2022**

**GEOLOGY**

Paper - VIII

**(Mining Geology and Engineering Geology)**

*Time : 3 Hours ]*

*[ Maximum Marks : 75*

**Section-A**

**(Marks : 2 × 10 = 20)**

**Note :-** Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

**Section-B**

**(Marks : 5 × 5 = 25)**

**Note :-** Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

**Section-C**

**(Marks : 10 × 3 = 30)**

**Note :-** Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

**Section-A**

1. (i) What is Contouring ?
- (ii) Define topo sheet.

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- (iii) What are pathfinder elements ?
- (iv) What is well logging ?
- (v) Define Trench.
- (vi) Name any *two* explosives (with their chemical composition) used in mining industry.
- (vii) What is Flotation ?
- (viii) Define crushing and grinding.
- (ix) What is earth dam ?
- (x) Define compressive strength.

**Section-B**

2. Discuss different types of exploration techniques.

*Or*

Describe structural guide for ores.

3. Write a note on preservation and sampling of cores.

*Or*

Explain in brief seismic method.

4. Describe estimation of reserves by exploratory mining.

*Or*

Write a note on open cast mining.

5. Write down flow sheet for gold.

*Or*

Explain magnetic separation method.

6. Explain geological investigations for reservoir.

*Or*

Discuss geological parameters and problems of Tunneling.

### Section-C

7. Discuss the various methods of topographic survey.
8. Describe geochemical prospecting.
9. Write a detailed note on economic consideration in reserve estimation.
10. Explain the following :
  - (i) Gravity separation method
  - (ii) Electrostatic separation method
11. Describe classification of dams.