

Roll No.

Total Pages : 02

GSQ/M-20

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GEOLOGY

U-Geol-601

Engineering Geology and Mining Geology

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. Write in short about the following :
 - (a) Permeability
 - (b) Earthquake
 - (c) Ore bin
 - (d) Underground mapping in Mining. **2×4=8**

Unit I

2. What are Tunnels ? Classify tunnels and discuss utility of these. **8**
3. Write short notes on any *two* of the following :
 - (a) Compressive strength and Shear strength
 - (b) River Valley Project
 - (c) Highways. **4×2=8**

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Unit II

4. Discuss various techniques of evaluation of sites for dams. **8**
5. Brief any *two* of the following : **4×2=8**
- (a) Land hazard due to earthquakes
 - (b) Impact of landslides on civil engineering structures
 - (c) Selection of geologic material for construction.

Unit III

6. Define mining. Discuss various terminologies used in mining. Briefly discuss open cast mining. **8**
7. Write short notes on any *two* of the following :
- (a) Coal Mining
 - (b) Metal Mining
 - (c) Underground Mining. **4×2=8**

Unit IV

8. Write details about mines laws and regulations. **8**
9. Write short notes on any *two* of the following : **4×2=8**
- (a) Role of Geologists before start of mining
 - (b) Role of Geologists during mining
 - (c) Safety measures of mining.

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