

**I B. Tech I Semester Regular Examinations, July/August-2021**  
**ENGINEERING GEOLOGY**  
(Only for CE)

Time: 3 hours

Max. Marks: 70

**Answer any five Questions one Question from Each Unit**

**All Questions Carry Equal Marks**

- 1 a) Explain the terms weathering, erosion and denudation. (7M)  
b) What is weathering of rocks? Analyze critically the process of weathering in granite. (7M)
- Or**
- 2 a) Describe in detail the importance of physical Geology, Petrology and Structural geology in Civil engineering. (7M)  
b) Give two case histories of failure of dams. (7M)
- 3 a) Define mineral and describe the various physical properties (7M)  
b) which are useful in identification of minerals (7M)
- Or**
- 4 a) Distinguish between (i) Granite and Gabbro (ii) Lime stone and marble (7M)  
b) Distinguish between (i) Laterite and conglomerate (ii) Shale and Schist. (7M)
- 5 a) Classify folds into different types on the basis of the axial plane orientation (7M)  
b) Write short notes on the following: (7M)  
(i) High angle fault and low angle fault (ii) Dome and basin folds
- Or**
- 6 Explain the various effects of folding and their civil Engineering importance with reference to ground water, roads and railway tracks along hill slopes. (14M)
- 7 a) What is meant by earthquake? What are the effects of earthquakes? (7M)  
b) What are types and applications of seismic refraction methods (7M)
- Or**
- 8 a) Explain the relation between Geology and Geophysics. (7M)  
b) What is the importance of Geophysical Investigations? (7M)
- 9 a) State the role of geological structures in ground water at the tunnel site. (7M)  
b) Explain the importance of ground water conditions in tunneling. (7M)
- Or**
- 10 a) What are the parts of a dam, types of dams and different purposes of dam Construction? (7M)  
b) Describe the salient features of i) Gravity dam ii) Arch dam. (7M)