

## I B. Tech I Semester Supplementary Examinations, December-2021

## ENGINEERING GEOLOGY

(Only CE)

Time: 3 hours

Max. Marks: 70

**Answer any five Questions one Question from Each Unit****All Questions Carry Equal Marks****UNIT-I**

(7M)

- 1 a) Explain the following:  
 (i) Valley development (ii) Geological work of rivers.  
 b) Explain the weathering processes and its effect on properties of rocks. (7M)

**Or**

- 2 Explain briefly four case histories of civil engineering constructions failed due to geological aspects. (14M)

**UNIT-II**

- 3 a) Write the physical properties, chemical composition, atomic structure and uses of the following minerals. (i) Chlorite (ii) Graphite (7M)  
 b) Write the physical properties, chemical composition, atomic structure and uses of the following minerals. (i) Garnet (ii) Muscovite mica. (7M)

**Or**

- 4 a) Describe the classification of sedimentary rocks. (7M)  
 b) Describe the classification of rocks, and simple classification of Igneous rocks. DYKES and SILLS. (7M)

**UNIT-III**

- 5 a) Write short notes on the following with neat sketches. (7M)  
 (i) Fan fold (ii) Columnar joints  
 b) Write short notes on the following with neat sketches (7M)  
 (i) Angular unconformities (ii) Radial faults.

**Or**

- 6 a) Explain the terms intensity and magnitude of earthquakes. (7M)  
 b) Describe the Civil Engineering Considerations in Seismic Areas with reference to building construction. (7M)

**UNIT-IV**

- 7 a) Explain the following: (7M)  
 (i) Terminology of earthquake. (ii) Classification and causes of earthquake.  
 b) Discuss the difference between earthquakes & tsunamis? What are the effects causes due to it? (7M)

**Or**

- 8 a) What is meant by earthquake? What are the effects of earthquakes? (7M)  
 b) What are the precautionary measures taken in the construction of buildings in earthquake prone zones? (7M)

**UNIT-V**

- 9 a) Write a short note on the following : (7M)  
 (a) geological considerations in the successful reservoir  
 (b) Capacity of reservoir.  
 b) Write a short note on the following (7M)  
 (i) Effect of evaporation in reservoir. (ii) Life of reservoir.

**Or**

- 10 Write short notes on a) Different purposes of tunnels (14M)  
 b) Tunnels in faulted strata. c) Tunnels in folded strata.