

Code: CE3T4

**II B.Tech - I Semester–Regular/Supplementary Examinations  
November 2019**

**ENGINEERING GEOLOGY  
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks  
11x 2 = 22 M

1.

- a) What is the indication of rock being weathered?
- b) How do you measure the hardness of minerals?
- c) Write the physical properties of Feldspar.
- d) Define rock and name any two examples to sedimentary rocks?
- e) How do you determine the rock as igneous, sedimentary or metamorphic?
- f) What is the use of knowing structures and textures of rocks?
- g) What is an out crop?
- h) What is the scale used to measure the magnitude of Earthquake?
- i) Briefly explain the causes and effects of earthquakes.
- j) Write a short note on grouting.
- k) Explain the problem of over breaking in tunneling.

## PART – B

Answer any **THREE** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Summarize any two case histories of failure of structures due to Geological draw backs. 8 M
- b) Examine the role of physical properties for the identification of minerals. 8 M
3. a) Outline the Geological classification of rocks. 8 M
- b) Write a note on the classification of Faults. 8 M
4. a) Explain the importance of shield areas and seismic belts? Write a short note on precaution to be taken for buildings construction in seismic areas? 8 M
- b) Write a note on causes and mitigation measures to be taken in Landslide prone areas? 8 M
5. a) Describe the classification of geophysical methods of gravity, magnetic methods with their Importance? 8 M
- b) Discuss the seismic refraction principle, method and applications? 8 M

6. a) Explain the role of geological considerations in Tunneling?

8 M

b) What are the different types of Dams? Explain how do you select a site to construct a Dam?

8 M