

Code: CE3T4

**II B.Tech - I Semester–Regular/Supplementary Examinations
November 2016**

**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) List some geological considerations for the construction of Dams.
- b) What is the hardness of a mineral ?
- c) How sedimentary rocks are formed?
- d) List and give a small note on three metamorphic agents.
- e) Why the stabilization of soils is required?
- f) What is an Unconformity? List our different types of Unconformity.
- g) Define the term Groundwater table.
- h) What are the major differences between P and S- waves?
- i) What is the Principle involved in the Resistivity Surveys?
- j) Give a classification of Dams based on material.
- k) What is a Over break in Tunnels?

PART – B

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

3 x 16 = 48 M

2.

a) Discuss the importance of Geology from Civil engineering point of View. 8 M

b) Explain important physical properties of minerals that are commonly studied for their identification. 8 M

3.

a) Give a critical account on classification of Sedimentary rocks. 8 M

b) Explain different types of folds based on the inclination of axial plane. 8 M

4.

a) What is a cone of depression? Explain its significance in detail with neat sketch. 8 M

b) Discuss the causes and effects of Landslides in detail. 8 M

5.

a) Discuss the importance of Geophysical studies from the civil engineering point of view. 8 M

b) Give a comparative study of Gravity and Magnetic methods. 8 M

6.

a) Explain various factors contributing to the success of a Reservoir. 8 M

b) Discuss the role of geological considerations that influences the design, stability of tunnels. 8 M