

Code: CE3T4

II B.Tech - I Semester – Regular Examinations - December 2014

**ENGINEERING GEOLOGY
(CIVIL ENGINEERING)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) Define weathering. Discuss three ways how rocks can be weathered mechanically? 7 M
- b) Explain various geological factors that affect the civil engineering constructions with case studies? 7 M
2. Describe five physical properties of the following minerals you could use to identify: 14 M
 - i) Jasper
 - ii) Asbestos
 - iii) Kyanite
 - iv) Talc
 - v) Hematite
3. a) How do you distinguish mineral from a rock? What are the major differences between dykes and sills? 7 M
- b) How do you identify the following rocks through megascopic study? 7 M
 - i) Granite
 - ii) Conglomerate
 - iii) Gneiss

4. a) Draw an anticline and syncline, and label the limbs, axial planes and axis of each? 7 M
- b) Define unconformity? Describe different types of unconformities? 7 M
5. a) What is a perched water table? Write about the common types of ground water? Add a note on the importance of study of ground water? 7 M
- b) What is an earthquake? Discuss about the activities causing for earthquake? 7 M
6. Write an essay on the electrical methods of exploration. 14 M
7. Define dam. How do classify them? Analyse dam failures in past. How do you select a site to construct a dam, explain? 14 M
8. Define the term tunnel and give purposes of tunneling? Discuss in detail about the role of Geological considerations for proper tunneling? 14 M