

01105

B.TECH. IN CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

June, 2012

BICE-003 : ENGINEERING GEOLOGY

Time : 3 Hours

Maximum Marks : 70

Note : Answer any seven questions.

All questions carry equal marks.

1. Explain briefly the internal constitution of the earth. 10

2. Write a brief note on the Engineering problems of Marine erosion and Deposition. 10

3. Define the term "Metamorphism" as applied to rocks. What are the agents of Metamorphism, Also briefly explain how do they play their role ? 10

4. (a) Discuss the process of formation of minerals in nature. 7
(b) Which group of minerals is most common in occurrence ? List out in detail. 3

5. Briefly mention salient features and properties of the following groups of minerals. **10**
 - (a) Pyroxene Group
 - (b) Felspar Group

 6. What are the causes and effects of earthquakes ? Also Explain at least 2 major Indian earthquakes and their possible mode of origin. **10**

 7. What is stratigraphy ? Briefly Explain the principles of stratigraphic correlation. **10**

 8. Explain briefly the role of Geological conditions that influence the design, cost and stability of a Traffic Tunnel. **10**

 9. Discuss the most important Geological characteristics that have to be known for location of different types of Dams. **10**

 10. Write short notes on *any two* of the following : **10**
 - (a) Sheet Structure
 - (b) Volcanic Mountains
 - (c) River meandering
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