

**B.Tech. CIVIL (WATER RESOURCES
ENGINEERING)**
BTCLEVI/BTMEVI/BTELVI/BTECVI/BTC SVI

Term-End Examination

December, 2012

ET-531(A) : EARTH & ITS ENVIRONMENT

Time : 3 hours

Maximum Marks : 70

Note : Answer any five questions. All questions carry equal marks. Explanations with the help of neat and well labelled diagram where necessary shall carry due weightage.

1. Describe the following processes : **4x3½=14**
 - (a) Stream bank erosion
 - (b) Wind abrasion
 - (c) Marine deposits
 - (d) Rapid Mass Movements

2.
 - (a) What do you mean by sequence of river valley erosion ? Explain various stages of development of a typical delta building. **3+4**
 - (b) What is Gulley ? Describe the process of its formation, types and measures to control it. **2+1.5+1.5+2**

3. (a) Describe the nature of earthquakes and their effects in engineering structures. 3.5
(b) Define various intrusive forms of magma. 3.5
(c) Describe the process of formation of a rift valley and block mountains. 3.5
(d) Discuss the concept of orogenic and epiorogenic movements. 3.5
4. (a) Define climate. How the climate is classified? 3.5
(b) What do you understand by weather and weather forecasting ? 3.5
(c) What is temperature inversion ? 3.5
(d) Briefly explain Global Energy Balance. 3.5
5. (a) What do you understand by Streak Luster and Hardness in relation to minerals properties. 3.5
(b) Discuss symmetry with respect to minerals. 3.5
(c) Discuss the behaviour of minerals when they are subjected to stress. 3.5
(d) What are common factors that control the behaviour of minerals. 3.5
6. (a) What is stratigraphy ? Explain. 3.5
(b) How the geological time scale has been derived ? 3.5
(c) Show the distribution of Archaean Rocks in Peninsular India on a Map. 3.5
(d) What is the approximate age of the Deccan Trap ? Give basis for your answer. 3.5

7. (a) What are various functions of an ecosystem? 5
- (b) List different types of the ecosystems, and explain one of them in brief. 5
- (c) How the climatic abressions influence the ecology ? 4
8. (a) Why the conservation of Natural Resources so important ? Explain. 5
- (b) Describe the impacts of Dams on the life of people. 5
- (c) What is the worst kind of environmental pollution in your view. Justify your answer. 4
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