

**B.Tech. Civil (Water Resources Engineering)
BTCLEVI / BTMEVI / BTELVI / BTECVI / BTCSVI**

Term-End Examination

December, 2015

ET-531(A) : EARTH AND ITS ENVIRONMENT

Time : 3 hours

Maximum Marks : 70

Note : Answer any *five* questions. Give neat, well-labelled sketches where necessary.

1. (a) What is meant by meandering of a river ? Explain through neat sketches how ox-bow lakes are formed. 7
- (b) Describe the geological action of glaciers. Outline the characteristic features of glacial deposits. 7
2. (a) Differentiate between thermal and dynamothermal metamorphism. Discuss the effect of dynamothermal metamorphism on the assemblage minerals and structure of the pre-existing rocks. 7
- (b) Give a brief account of physical diagnostic properties of minerals. 7

3. (a) Define deformation. Explain how various deformation structures can be identified in the field. 7
- (b) Discuss in detail the behaviour of materials under deformation conditions. 7
4. (a) Describing the concept of Gondwanaland, give sequence of Gondwana deposits and distribution in India. 7
- (b) Describe the principles of stratigraphic correlation. 7
5. (a) Define faults. Give geometrical and genetic classification of faults. 7
- (b) Explain how faults can be recognized in the field. 7
6. (a) Explaining stratification and zonation in aquatic ecosystem, discuss the factors responsible for zonation in fresh water. 7
- (b) Outline various factors that are responsible for environmental pollution. 7
7. (a) Describe the unique features of Savanna biome, Coniferous forest biome and Deciduous forest biome. 7

(b) Distinguish between the following : 7

- (i) Biotic and Abiotic components of ecosystem
- (ii) Biodegradable and Non-biodegradable pollutants
- (iii) Evaporation and Transpiration
- (iv) Aquifer and Aquiclude

8. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Biogeochemical Cycles
 - (b) Soil Conservation
 - (c) Sustainable Development
 - (d) Jurassic Rocks of Kutch
 - (e) Marine Deposits
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