Roll No. Total No. of Pages : 02

Total No. of Questions: 09

B.Tech.(CE) (2011 Onwards) (Sem.-3) ROCK MECHANICS & ENGINEERING

Subject Code: BTCE-302 Paper ID: [A1114]

Time: 3 Hrs. Max. Marks: 60

## **INSTRUCTION TO CANDIDATES:**

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

#### **SECTION-A**

# 1. Write briefly:

- 1. What is a River Meandering phenomenon?
- 2. Differentiate between Shale and Schist.
- 3. What is Non Unconformity?
- 4. What is strike slip fault?
- 5. Differentiate between Permeability and Porosity.
- 6. What is Flat Jack Test used for?
- 7. What is Rock Bolting?
- 8. Define **any two** feature produced by Wind Erosion.
- 9. Classification of joints based Geometry.
- 10. Differentiate between *Uniaxial* and *Triaxial* compressive strength.

### **SECTION-B**

- 2. Discuss features produced by Wind deposition.
- 3. Explain salient features of a GRAVITY Dam.
- 4. Draw a diagram of Fold and label various part of a Fold.
- 5. Explain different properties of various Earthquake Waves.
- 6. Discuss in brief Rock Stabilization by Grouting.

## **SECTION-C**

- 7. Differentiate between NORMAL and REVERSE Fault. Describe engineering consideration adopted in civil engineering projects in faulted terrain.
- 8. Describe in detail geological work performed by the Glaciers along with resulting features.
- 9. Describe in detail *in situ* Shear Tests.