

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  
M.Code : 56073

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**

**Q1. Answer briefly :**

- a) Differentiate between HORST & GRABEN.
- b) What are the typical characteristics of "S" Waves?
- c) Draw a sketch of Normal FOLD showing various parts.
- d) What are the different causes of Landslides?
- e) Between Sandstone and Shale which rock is having higher porosity and why?
- f) What is Flat Jack Test used for.
- g) What are the different types of bolts used for Rock Bolting?
- h) What is Yardang?
- i) What is a Disconformity?
- j) What is Triaxial compressive strength?

### SECTION-B

- Q2. Discuss features produced by Deposition of Glaciers.
- Q3. Discuss salient features of a GRAVITY Dam.
- Q4. Explain how do you recognize FAULTS in the field.
- Q5. Write a short note on Seismogram.
- Q6. Write a short note on Compressive Strength.

### SECTION-C

- Q7. Classify JOINTS based on Geometry. Discuss engineering consideration of joints.
- Q8. Discuss Depositional features produced by Rivers with precautions required for engineering projects in fluvial terrain.
- Q9. Using PLATE Bearing Test describe in detail. How insitu deformity of rocks is measured?

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**