Roll No. [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CE) (Sem.–3)

ROCK MECHANICS & ENGINEERING

Subject Code : BTCE-302 (2011 Batch)

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 has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Answer briefly :

   i) Differentiate between HORST & GRABEN.

   ii) What are the typical characteristics of "P" Waves?

   iii) Draw a sketch of FOLD showing various parts.

   iv) What are the different causes of Landslides?

   v) Between Sandstone and Limestone which rock is having higher porosity and why?

   vi) What is Flat Jack Test used for?

   vii) What are the different types of bolts used for Rock Bolting?

   viii) What is FROST ACTION?

   ix) What is a Disconformity ?

   x) What is Triaxial compressive strength?

SECTION-B

2. Discuss features produced by Deposition of Glaciers.
3. Discuss salient features of a GRAVITY Dam.
4. Explain how do you recognize FAULTS in the field.
5. Discuss different properties of various Earthquake Waves.
6. Write a short note on Compressive Strength.

SECTION-C

7. Classify JOINTS based on Geometry. Discuss engineering consideration of joints.
8. Discuss Depositional features produced by Glaciers with precautions required for engineering projects in glaciated terrain.
9. Using PLATE Bearing Test describe in detail how in situ deformity of rocks is measured?