Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE) (2012 to 2017) (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

1. Answer briefly :

a) What are the typical characteristics of "S" Waves?

b) Differentiate between Uniaxial and triaxial compressive strength.

c) Which is the softest substance and what is its hardness?

d) Differentiate between HORST & GRABEN.

e) What is Rock bolting?

f) Between Sandstone and Shale which rock is having higher porosity and why?

g) Define True dip

h) What is a River Meandering phenomenon?

i) What do you understand by Twin crystal?

j) Define Sand Dunes.

SECTION-B

2. What are the main geological considerations to be made for tunnel & highways?

3. Give a detailed account of erosive work of wind explaining principles and important features of wind erosion.

4. Discuss in detail the classification of faults on the basis of geometry and origin with neat sketches.

5. Explain the geological work of Glaciers.

6. Explain why all cracks in the rock mass do not propagate always in their direction of crack initiation.

SECTION-C

7. What are static and dynamic methods for evaluation of elastic constants of rocks? Discuss in brief.

8. How folds are classified? Explain with the help of sketches, important types of folds as distinguished on the basis of inclination of axial plane.

9. What are objectives of Rock mass classification? Explain in detail.

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.