Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (CE) (2012 to 2017) (Sem.–3)

ROCK MECHANICS & ENGINEERING

Subject Code : BTCE-302

M.Code : 56073

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS 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

Answer briefly :

1. Draw a neat sketch showing STRIKE of a Fault.
2. Define RQD.
3. What is the hardness of Diamond?
4. What are shear waves?
5. Define True Dip.
6. How do you achieve rock reinforcement?
7. What is Rock bolting?
8. What is River Meandering phenomenon?
9. Define magnitude of an earthquake.
10. Differentiate between HORST and GRABEN.

SECTION-B

11. Explain Geological work of Glaciers.

12. Explain the properties of Limestone, briefly indicating its uses.

13. Give an account of different types of FOLDS found in nature. What is Pitching Anticline?

14. Explain different types of Grouting.

15. How do topographical features control Civil Engineering Projects such as highways, tunnels and reservoirs?

SECTION-C

16. Why shear tests are necessary for a rock mass? How shear strength of rock mass can be evaluated with the help of Jack Test.

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

18. Write short notes on :

    a) Igneous Rocks

    b) CABLE Tests

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.