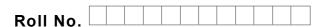


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Total No. of Pages : 02

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# 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.



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#### **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.