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Total No. of Pages: 01
Total No. of Questions: 09**B. Tech.(CE) (Sem.-3rd)**
ROCK MECHANICS & ENGINEERING
GEOLOGY**Subject Code: BTCE-302****Paper ID: A1114****Time: 3 Hrs.****Max. Marks: 60**

- Note:** 1. Question paper is having three Sections of 20 marks each.
 2. Section A contains only one question having 10 sub-questions of 2 marks each. Students will have to attempt all the sub-questions.
 3. Section B contains 5 questions & students have to attempt only 4 questions. Each question will carry 5 marks.
 4. Section C contains 3 questions & students have to attempt only 2 questions. Each Question will carry 10 marks.

Section A

Q.1 (10x2=20)

- a) What is a River Meandering phenomenon?
- b) Differentiate between Granite and Basalt.
- c) Define Unconformity.
- d) What are the different earthquake waves?
- e) Differentiate between Permeability and Porosity.
- f) What is Flat Jack Test used for.
- g) What is Rock Bolting?
- h) What are factors responsible for Glacial Erosion?
- i) What is an Angular Unconformity?
- j) Differentiate between Uniaxial and Triaxial compressive strength.

Section B**(4x5=20)**

- Q. 2 Discuss features produced by Deposition of River.
- Q. 3 Explain salient features of a GRAVITY Dam.
- Q. 4 Draw a diagram of Fold and label various part of a Fold.
- Q. 5 Explain different properties of various Earthquake Waves.
- Q. 6 Discuss in brief Rock Stabilization by Grouting.

Section c**(2x10=20)**

- Q. 7 Differentiate between NORMAL and REVERSE Fault. Describe engineering consideration adopted in civil engineering projects.
- Q. 8 Describe in detail geological work performed by the Rivers along with resulting features
- Q.9 Describe in detail in situ Shear Test.

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