

## CBCS SCHEME

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18CV36

**Third Semester B.E. Degree Examination, Jan./Feb. 2021**  
**Engineering Geology**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

**Module-1**

- 1 a. Discuss in brief different branches of Geology, which are related to Civil Engineering. (04 Marks)  
 b. Briefly explain the internal structure of the earth based on different unconformities and add a note on its composition. (08 Marks)  
 c. Explain the role of Geology in the field of Civil Engineering. (08 Marks)

OR

- 2 a. What is Mineral? Describe the following Physical properties of a Mineral.  
 i) FORM    ii) Hardness    iii) Fracture. (06 Marks)  
 b. Explain the primary structures in Sedimentary rocks, with neat sketches. (08 Marks)  
 c. Write a note on Soil profile. (06 Marks)

**Module-2**

- 3 a. What are Folds? How are they caused? Discuss the various types of folds in rock and influences on Civil Engineering. (15 Marks)  
 b. What is Normal Fault? Add a note on Horst and Graben, with neat sketches. (05 Marks)

OR

- 4 a. What is Weathering? Describe Physical and Mechanical weathering. (10 Marks)  
 b. Explain Railway ballast with examples. (05 Marks)  
 c. Write notes on causes of Landslides. (05 Marks)

**Module-3**

- 5 a. What is an Out Crop? Describe the terms strike and DIP, with a neat sketch. (08 Marks)  
 b. Explain Floods, causes and its control. (06 Marks)  
 c. Write a note on Tunneling through the fold axis of an Anticline. (06 Marks)

OR

- 6 a. Briefly explain Exogeneous and Endogeneous geological events. (06 Marks)  
 b. Describe the different drainage patterns of a River basin, with neat sketches. (08 Marks)  
 c. Briefly explain Extrusive and Intrusive forms of Igneous rocks. (06 Marks)

**Module-4**

- 7 a. Explain the Electrical resistivity method for exploration of ground water. (08 Marks)  
 b. Explain how the quality of ground water can be determined by SAR, RSC, GTH. (04 Marks)  
 c. Explain how Artificial recharge of ground water can be made. (08 Marks)

OR

- 8 a. Describe with a neat diagram, Vertical distribution of Ground water. (10 Marks)  
 b. Write a brief note on Land forms. (10 Marks)

1 of 2

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.

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**Module-5**

- 9 a. What is an Earth Quake? Describe the Tectonic causes of Earthquake and its effects. (08 Marks)  
b. Explain Aquifer and its types. (06 Marks)  
c. Write a note on Specific Yield and Specific Retention. (06 Marks)
- OR**
- 10 a. What is Remote Sensing? Write its application in Civil Engineering. (08 Marks)  
b. What is GIS? Name the different components of GIS. (06 Marks)  
c. Write an application on Global Positioning System (GPS) in Civil Engineering. (06 Marks)

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