

### III B. Tech I Semester Supplementary Examinations, February-2022

#### ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)

2. Answering the question in **Part-A** is compulsory

3. Answer any **THREE** Questions from **Part-B**

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**PART -A**

**(22 Marks)**

1. a) Advances in geology in allied fields have lead to specialized sciences. What are those? [3M]
- b) Write the mode of formation of minerals. [4M]
- c) Define the terms Strike & Dip. [4M]
- d) Define the terms Porosity and Permeability. [4M]
- e) Write the physical property and principle of Gravity methods. [4M]
- f) What is meant by Overbreak? [3M]

## PART -B

**(48 Marks)**

2. a) What is the importance of geology in civil engineering? Explain. [8M]  
b) What are the Indian Rivers? Explain the geological work of rivers. [8M]
3. a) Write the physical property, chemical composition and uses of QUARTZ group of minerals. [8M]  
b) What are the structures and textures of metamorphic rocks with sketches? [8M]
4. a) What are the parts of FAULTS? Give their mechanism. [8M]  
b) What are the types of FAULTS? Explain each with respective sketch. [8M]
5. a) Explain the terminology, classification and causes of Earthquakes. [8M]  
b) What are the preventive measures for construction of buildings in Earthquake prone areas? [8M]
6. a) What are the branches of Geophysics, give their importance. [8M]  
b) Explain the Electrical Resistivity method with sketch. [8M]
7. a) What is the purpose of Dams? [8M]  
b) Explain the Geological considerations for successful construction of Dams with sketch. [8M]

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