

# CBCS SCHEME

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15CV/CT35

## Third Semester B.E. Degree Examination, June/July 2018

### Engineering Geology

Time: 3 hrs.

Max. Marks: 80

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

#### Module-1

- 1 a. Describe the importance and applications of geology in civil engineering practices. (05 Marks)  
b. Describe the internal structure and composition of the earth with a neat diagram. (05 Marks)  
c. Define what is a mineral? Describe how minerals are classified. Describe the physical properties. Luster and fracture with mineral examples. (06 Marks)

OR

- 2 a. Define what is rock? Classify the different types of rocks and describe how it is formed. Give examples. Explain the rock cycle. (06 Marks)  
b. What is fold? Describe with a neat diagram the different parts of a fold. (05 Marks)  
c. What are joints? Describe the classification of joints. Explain the different types joints present in igneous, sedimentary and metamorphic rocks. (05 Marks)

#### Module-2

- 3 a. What is fault? Draw a net diagram of the fault and describe the different parts. Write the classification of fault with neat sketch. (08 Marks)  
b. Describe the geological considerations of joints and folds in the construction of dams and tunnels. (08 Marks)

OR

- 4 Describe in detail with neat sketches concordant and discordant igneous intrusions. (16 Marks)

#### Module-3

- 5 a. What is weathering? Describe in detail about physical weathering and chemical weathering. (08 Marks)  
b. Give a detailed account of geologic work of rivers. (08 Marks)

OR

- 6 a. What is earth quake? Write the causes and effects. (08 Marks)  
b. What are seismic waves? Describe in detail the different seismic waves. (08 Marks)

#### Module-4

- 7 What is an aquifer? Explain the different types of aquifers and its properties. (16 Marks)

OR

- 8 What is ground water investigation? Describe the different methods involved in selection of well sites. Describe the electrical resistivity method of selecting a well site. (16 Marks)

#### Module-5

- 9 What is remote sensing? Explain the basic concepts of remote sensing with a neat sketch. Explain the advantages and disadvantages of remote sensing. (16 Marks)

OR

- 10 Describe in detail the impact of mining, quarrying and reservoirs on environment. (16 Marks)

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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.