

CBCS SCHEME

18CV36



Third Semester B.E. Degree Examination, Aug./Sept.2020 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. What is Geology? Describe the importance of Geology in Civil Engineering. (10 Marks)
b. What is Mineral? Define, describe the different physical properties which helps in the identification of minerals. (10 Marks)

OR

- 2 a. Describe the Earth's crust, Mantle and Core, with a neat diagram. (08 Marks)
b. Describe the following with mineral examples :
i) Lustre and its types ii) Fracture and its types. (06 Marks)
c. Write the physical properties, chemical composition and uses of :
i) Orthoclase ii) Calcite. (06 Marks)

Module-2

- 3 a. Explain Rock cycle. (05 Marks)
b. Give the classification of Igneous rocks. (10 Marks)
c. Describe the properties of GRANITE and its uses in different Civil Engineering Construction. (05 Marks)

OR

- 4 a. What is Rock Weathering? Describe the different types of weathering. (10 Marks)
b. What is Metamorphism? Describe the different agents of metamorphism. (10 Marks)

Module-3

- 5 a. What is Fold? With a neat diagram, describe the different parts of fold. (05 Marks)
b. Describe the different types of faults based on their mode of occurrence, with neat diagram. (10 Marks)
c. What are Joints? Write the classification and describe different types of tension joints. (05 Marks)

OR

- 6 a. What is Fault? With a neat diagram, describe the different parts of a fault. (08 Marks)
b. Describe the different types of folding on the basis of their axial plane, with neat diagram. (07 Marks)
c. Describe the causes of folding. (05 Marks)

Module-4

- 7 a. Describe with a neat diagram the hydrological cycle. (07 Marks)
b. Describe the vertical distribution of ground water in soil and rock. (07 Marks)
c. Describe : i) Specific yield ii) Specific retention. (06 Marks)

OR

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.

- 8 a. What is an Aquifer? Describe the types of aquifer. (08 Marks)
b. Describe i) Porosity ii) Permeability. (04 Marks)
c. Describe the ground water exploration by Electrical Resistivity Method. (08 Marks)

Module-5

- 9 a. What is an Earth quake? Describe its causes and effects. (07 Marks)
b. What is Remote sensing? Describe the principles , advantages and disadvantages of remote sensing. (08 Marks)
c. Describe the process involved in Geographic Information System (GIS). (05 Marks)

OR

- 10 a. What are Landslides? Describe the causes and control measures. (08 Marks)
b. Describe the impact of mining on Environment. (06 Marks)
c. Describe the impact of reservoir on Environment. (06 Marks)
