

CBCS SCHEME

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17CV/CT35

Third Semester B.E. Degree Examination, Dec.2018/Jan.2019 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. Describe the role of geology in the Civil Engineering Projects. (06 Marks)
b. With neat sketch, explain the different zones of the interior of the EARTH. (06 Marks)
c. Define a mineral with examples. Describe the following physical properties of minerals :
i) Lustre ii) Cleavage. (08 Marks)

OR

- 2 Describe how the physical properties are helpful in their identification of minerals in the field with examples. (20 Marks)

Module-2

- 3 a. What are Rocks? Based on their origin, how the rocks have been classified and how are they formed with examples. (04 Marks)
b. With the help of neat sketches, describe the forms of igneous rocks. (08 Marks)
c. Describe any two rocks their geological properties and add their engineering uses :
i) Granite ii) Sand stone iii) Marble. (08 Marks)

OR

- 4 What are folds? How are they caused? With neat sketch, mention the parts of the fold. Describe the different types of folds with figures. Also add a note on their civil engineering considerations. (20 Marks)

Module-3

- 5 a. What is Weathering? Describe the mechanical and chemical weathering. (10 Marks)
b. Give detailed account of geological work done by rivers. (10 Marks)

OR

- 6 a. What is an Earthquake? Describe the tectonic causes of earthquake and write note on the effects of earthquakes. (10 Marks)
b. Write note on causes of landslides. (05 Marks)
c. Write brief note on coastal land forms. (05 Marks)

Module-4

- 7 a. Define Ground water. Describe the hydrological cycle. Explain the factors influencing the surface runoff and infiltration. (10 Marks)
b. Discuss the ground water survey by Electrical Resistivity method, with a circuit diagram. (10 Marks)

OR

8 Write notes on :

- a. Water table and perched water table.
- b. Aquifer and its types.
- c. Specific yield and retention.
- d. Porosity and Permeability.

(20 Marks)

Module-5

- 9 a. What is Remote Sensing? Write its application in Civil Engineering. (08 Marks)
- b. What is Geographical Information System? Name the different components of Geographical Information System. (06 Marks)
- c. Write a note on Application of Global Positioning System (GPS) in Civil Engineering. (06 Marks)

OR

10 Write a note on :

- a. Impact of Mining, Quarring on Environment.
- b. Natural disasters and their mitigation.

(10 Marks)

(10 Marks)
