

CBCS SCHEME

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17CV/CT35

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. Enumerate importance and applications of Geology in Civil Engineering practices. (05 Marks)
b. With a neat sketch, explain the internal structure and composition of the Earth. (10 Marks)
c. Discuss physical properties of any 2 of the following minerals :
i) Orthoclase ii) Corundum iii) Hematite. (05 Marks)

OR

- 2 a. What is Mineral? Distinguish between Rock forming and Ore mineral with example. (08 Marks)
b. Discuss any two physical properties of mineral :
i) Streak ii) Lustre iii) Cleavage. (06 Marks)
c. Explain Moh's scale of Hardness. (06 Marks)

Module-2

- 3 a. Explain the classification of rocks, with example. (06 Marks)
b. What are Igneous rock? Describe classification of Igneous rocks based on Depth of origin. (08 Marks)
c. What is Fold? Describe parts of fold with neat sketch. (06 Marks)

OR

- 4 a. Write a note on Joints and types of Joints. (06 Marks)
b. What is Metamorphism? Explain the types of Metamorphism. (08 Marks)
c. Explain Rock Deformation and Controlling factors. (06 Marks)

Module-3

- 5 a. What is Weathering? Explain different types of weathering. (08 Marks)
b. Discuss the feasibility of Dam in folded and faulted region. (06 Marks)
c. What is Landslide? Describe causes and prevention of Landslides. (06 Marks)

OR

- 6 a. What is an Earthquake? Describe how it causes. (07 Marks)
b. What is Drainage Basin? Explain Drainage Density and Drainage frequency. (07 Marks)
c. Write a note on Epigene and Hypogene geological process. (06 Marks)

Module-4

- 7 a. What is an Aquifer? Explain different types of aquifers. (06 Marks)
b. Write a note on SAR, RSC. (06 Marks)
c. Explain Electrical Resistivity methods of Groundwater Exploration. (08 Marks)

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OR



- 8 a. Explain Hydrological cycle. (05 Marks)
b. Write a note on Artificial Recharge. (05 Marks)
c. Brief different Water Bearing Formations. (05 Marks)
d. Explain classification of sub surface water. (05 Marks)

Module-5

- 9 a. What is Remote Sensing? Explain types of Remote sensing and advantages. (08 Marks)
b. Write a note on Geographical Information System (GIS). (06 Marks)
c. What is Landsat Imagery? Write its uses in Civil Engineering. (06 Marks)

OR

- 10 a. Explain the importance of topographical maps in Civil Engineering. (07 Marks)
b. Explain Impact of mining and quarrying on Environment. (07 Marks)
c. Write a note on Natural Disasters. (06 Marks)

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