



CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

18CV36

Third Semester B.E. Degree Examination, June/July 2024 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. Briefly explain the role of Engineering Geology in Civil Engineering practice. (08 Marks)
b. Explain the internal structure of the Earth, with neat sketches. (08 Marks)
c. Write luster, hardness, chemical composition of
i) ROSE QUARTZ and ii) ORTHOCLASE. (04 Marks)

OR

- 2 a. Give a detailed account of physical properties of minerals. (08 Marks)
b. Write the physical properties, chemical composition and uses of following minerals:
i) HEMATITE ii) CHALCOPYRITE. (08 Marks)
c. Differentiate between Rock forming minerals and Ore minerals. (04 Marks)

Module-2

- 3 a. Give a detailed account of classification of Igneous rocks based on their origin with suitable examples. (08 Marks)
b. Write the physical properties, mode of origin and engineering uses of sand stone and marble. (08 Marks)
c. Differentiate between Gneissose structure and Schistose structure. (04 Marks)

OR

- 4 a. Briefly explain the types of Weathering. (08 Marks)
b. Give a detailed account of Soil profile, with neat sketch. (06 Marks)
c. Write short note on types of drainage patterns. (06 Marks)

Module-3

- 5 a. Give a detailed account of geological investigations to be carried out for the construction of dams. (08 Marks)
b. Explain the types of unconformities, with neat sketch. (08 Marks)
c. Define the Dip and Strike of the rock formation. (04 Marks)

OR

- 6 a. Give the detailed classification of faults. (10 Marks)
b. What are the important geological conditions of site investigation for tunneling with regard to their safety and stability? (10 Marks)

Module-4

- 7 a. Define i) Porosity ii) Permeability iii) Specific yield iv) Specific retention. (08 Marks)
b. Explain the types of Aquifers with neat sketch. (08 Marks)
c. Differentiate between Aquitard and Aquiclude. (04 Marks)

OR

- 8 a. Give a detailed account of Electrical Resistivity method for ground water exploration. (08 Marks)
b. Explain the components of Hydrogeological cycle, with neat sketch. (06 Marks)
c. Write short note on Floods and its control. (06 Marks)

Module-5

- 9 a. Give the detailed account of causes and effects of Earthquakes. (08 Marks)
b. What are Landslides? Suggest the remedial measures for the landslides. (06 Marks)
c. Give an account of application of Global Positioning system. (06 Marks)

OR

- 10 a. Give a detailed account of application of remote sensing in Civil Engineering field. (08 Marks)
b. What is Remote sensing? Write the merits and demerits of remote sensing technology. (06 Marks)
c. Give a brief account of components and application of Geographical Information system. (06 Marks)
