

CBCS SCHEME

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Third Semester B.E. Degree Examination, July/August 2021 Engineering Geology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. What is Geology? Describe the role of Geology in Civil Engineering. (10 Marks)
b. Define Mineral. Describe following physical properties of Minerals : (10 Marks)
i) FORMS ii) Fracture iii) Hardness.
- 2 a. Give a detailed account of Interior of Earth. (10 Marks)
b. Write the physical properties, chemical composition and uses of (10 Marks)
i) Calcite ii) Hematite iii) Mica.
- 3 a. What is Igneous Rock? Give the classification of Igneous Rocks based on origin. (10 Marks)
b. What are Sedimentary Rocks? Explain primary structure of Sedimentary Rocks. (10 Marks)
- 4 a. What is Weathering? Explain causes and types of weathering. (10 Marks)
b. What is Soil? Explain Soil profile. (05 Marks)
c. Explain different types of Drainage patterns. (05 Marks)
- 5 a. What are Joint? Explain types of Joints and write importance in Civil Engineering field. (10 Marks)
b. What is Outcrop? Add note on : i) DIP ii) Strike. (05 Marks)
c. Write a note on Rock Quality Determination (RQD). (05 Marks)
- 6 a. What is Fault? Give the classification of Faults with neat sketch. (10 Marks)
b. Define Unconformity. Describe the types of unconformity and mention the field evidence of unconformity. (10 Marks)
- 7 a. Discuss the groundwater exploration by Electrical Resistivity method. (10 Marks)
b. What is Rain Water Harvesting? Explain different methods of Rain Water Harvesting. (05 Marks)
c. Explain Hydrological cycle. (05 Marks)
- 8 a. What is Aquifer? Explain different types of Aquifer. (10 Marks)
b. Explain following : (10 Marks)
i) Causes of Sea water Intrusions in coastal area ii) Cyclones and its effects.
- 9 a. What is an Earthquake? Write the causes and effects of Earthquake. (10 Marks)
b. What is Remote Sensing? Explain important Application of Remote Sensing in Water resources field. (05 Marks)
c. What is GPS? Describe application of GPS. (05 Marks)
- 10 a. Define GIS. Explain application of GIS and components of GIS. (10 Marks)
b. What is Landslide? Explain main causes of landslide. (10 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.