

CBCS SCHEME

15CT/CV35



Third Semester B.E. Degree Examination, Jan./Feb.2021 Engineering Geology

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is Engineering Geology? Name any four branches of Geology and Explain. (08 Marks)
b. Explain the importance and utility of geological studies to civil engineers. (08 Marks)

OR

- 2 a. Draw a neat sketch of internal structure of the earth. Explain the composition and structure. (08 Marks)
b. Write a note on any four of the following with suitable examples:
CLEAVAGE; HABIT; STREAK; FRACTURE; LUSTER; HARDNESS; TENACITY (08 Marks)

Module-2

- 3 a. What are sedimentary rocks? Explain the primary structures of sedimentary rocks with suitable diagrams. (10 Marks)
b. What is metamorphism? Describe the types of metamorphism. (06 Marks)

OR

- 4 a. What is Fault? Explain the parts and describe any three types of faults, with neat sketch. (10 Marks)
b. Describe the engineering considerations of folds, faults and unconformities. (06 Marks)

Module-3

- 5 Define weathering. Explain the types of weathering and its effects on civil engineering projects. (16 Marks)

OR

- 6 a. Describe the geological considerations required during the selection of a site for dam construction. (12 Marks)
b. Write a note on causes and prevention of landslides. (04 Marks)

Module-4

- 7 a. How the electrical resistivity method is used in ground water exploration? (10 Marks)
b. Give an account of artificial recharge of ground water. (06 Marks)

OR

- 8 Write a note on:
(i) Ground water pollution.
(ii) Hydrological cycle.
(iii) Aquifer and its types
(iv) Porosity and Permeability. (16 Marks)

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.

Module-5

- 9 Write a note on :
- Applications of Remote Sensing.
 - Applications of Global Positioning System [GPS].
 - Applications of Geographic Information System [GIS].
 - Topographic maps.

(16 Marks)

OR

- 10 Write a note on :
- Impact of quarrying on environment.
 - Definition and uses of LANDSAT imagery.
 - Impact of reservoirs on environment.
 - Natural Disaster and their mitigation.

(16 Marks)

