

I B. Tech I Semester Supplementary Examinations, AUGUST/SEP-2022
ENGINEERING GEOLOGY
(Only CE)

Time: 3 hours

Max. Marks: 70

Answer any five Questions one Question from Each Unit

All Questions Carry Equal Marks

UNIT-I

1 Explain briefly four case histories of civil engineering constructions failed due to geological aspects. (14M)

Or

2 Give a brief study of case histories of failure of some civil engineering constructions due to geological drawbacks. (14M)

UNIT-II

3 a) Enlist and explain the textures of metamorphic rocks. (7M)

b) Write physical and chemical properties of quartz, and KYANITE. (7M)

Or

4 a) What is a mineral and the advantage of study of physical properties in mineral identification. (7M)

b) What are the common rock forming minerals and their importance in Civil Engineering? (7M)

UNIT-III

5 a) Give the various classifications of joints with neat sketches. (7M)

b) What is meant by an unconformity? (7M)

Or

6 Brief description of common types of folds, with sketches - their Civil Engineering importance. (14M)

UNIT-IV

7 Describe different Geophysical methods interms of principle, parameters, methods, equipment and applications of Gravity methods, Magnetic methods, Electrical methods? (14M)

Or

8 a) Describe the various investigations used in groundwater exploration. (7M)

b) What is the difference between free ground water and artesian water? (7M)

UNIT-V

9 a) What is overbreak in tunneling? How is different from a pay line? (7M)

b) Write short notes on: (7M)
 (i) Faults at the tunnel site. (ii) Economical aspects of tunneling.

Or

10 What is a geological structure? How the geological structures are responsible for the failure of any tunnel alignment? Explain. (14M)

