



R20 Regulation

Subject code: 3P4AB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech IV Semester Regular/Supplementary Examinations, September 2023

Engineering Geology

(Civil Engineering)

Maximum Marks: 70

Date: 15.09.2023 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What is soil pedogenesis?
- 2 Show the internal structure of earth with a neat sketch.
- 3 Differentiate between cleavage and fracture.
- 4 Bring out the differences between Muscovite and Biotite.
- 5 What are quasi elastic rocks? Give examples.
- 6 What is contact metamorphism?
- 7 Define fold.
- 8 What are the causes of earthquake?
- 9 What are embankment dams?
- 10 List the factors influencing the life of reservoirs.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 What is weathering of rocks? Explain the processes most commonly involved in mechanical weathering. [10]
OR
- 12 Explain the erosional and depositional landforms produced by river and its significance in civil engineering. [10]
- 13 Describe the composition, properties, varieties and uses of asbestos, quartz and feldspar. [10]
OR
- 14 Discuss the physical properties of minerals using appropriate examples from mineral kingdom. [10]
- 15 Give an account of the classification of igneous rocks, their engineering properties and uses in civil engineering. [10]
OR
- 16 Write an essay on the engineering properties, distribution and use of granite and laterites. [10]
- 17 What are the landslides? Discuss briefly their types, causes and preventative measures. [10]
OR
- 18 Give an account of faults, their causes and effects on the engineering quality of rocks. [10]
- 19 List the types of dams and discuss the geological problems encountered in the construction of dams. [10]
OR
- 20 List the purpose of tunneling and discuss the geological criteria that are considered in tunneling project. [10]