R25 Regulation *Subject code:5PC2AC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech II Semester Regular Examinations, June 2026

ENGINEERING GEOLOGY AND BUILDING MATERIALS

(CE)

Maximum Marks: 60 Date: 24.06.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
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 (5X2M=10Marks)		Marks	CO	BTL
1.a	What do you understand by hydration of cement?	2M	1	L2
b	Identify the use of Mohs scale in mineral study.	2M	2	L3
c	Analyze the significance of outcrops in understanding geological formations.	2M	3	L2
d	Assess the importance of quarrying and dressing in improving the quality of stones.	2M	4	L2
e	Explain the applications of GFRP in Civil Engineering structures.	2M	5	L2

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) Write about geological work of river. b) Explain the process of Weathering in Granite.	5M 5M	1	L2
	OR			
3	a) Explain the geological drawbacks responsible for the failure of the St. Francis Dam and Hales Bar Dam. b) Explain the different types of weathering that commonly affect granite rocks.	5M 5M	1	L2
4	a) Explain the use of X-ray analysis method in the identification of minerals. b) Compare the megascopic and microscopic characteristics of Dolerite and Basalt, and explain how these properties help in their field identification.	4M 6M	2	L3
	OR			
5	a) Summarize the physical properties and civil engineering significance of Kyanite. b) Classify and explain the types of igneous rocks based on chemical composition and mineral content.	5M 5M	2	L2

6	a) Differentiate true dip and apparent dip by analyzing their geological significance in field studies. b) Analyze the formation and development of a cone of depression around a pumping well with suitable sketches.	4M 6M	3	L2
	OR			
7	a) Analyze the differences between translational faults and rotational faults based on movement and structural characteristics. b) Explain the concept and objectives of soil stabilization in civil engineering applications.	5M 5M	3	L2
8	What are the parts of FAULTS and give their types with sketches.	10M	4	L2
	OR			
9	a) Explain the manufacturing process of brick. b) Explain the different types of engineering wood used in construction applications.	5M 5M	4	L2
10	Explain the classification of adhesives used in building materials and engineering applications.	10M	5	L2
	OR			
11	Explain the detailed process of manufacturing of glass.	10M	5	L2