



R22 Regulation

Subject code: 4E4AA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Supplementary Examinations, December 2025 ENGINEERING GEOLOGY (CE)

Maximum Marks: 60

Date: 16.12.2025

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 (10X1M=10 Marks)		Marks	CO	Bloom Tx
1.a)	Mention the different landforms formed due to River Erosion.	1M	CO1	BT1
b)	Compare asthenosphere and lithosphere.	1M	CO1	BT2
c)	List the types of lustre.	1M	CO2	BT1
d)	How is muscovite distinguished from biotite?	1M	CO2	BT2
e)	Give the geological importance of granite.	1M	CO3	BT1
f)	State the significance of metamorphism.	1M	CO3	BT1
g)	What is the strike of a layer?	1M	CO4	BT1
h)	List at least two effects of landslides on the environment.	1M	CO4	BT1
i)	How can you reduce the silting of reservoir?	1M	CO5	BT1
j)	Mention the different types of tunnels.	1M	CO5	BT1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	Explain the scope and importance of geology in civil engineering work.	10M	CO1	BT3
OR				
3	Compare weathering and erosion. Discuss the importance of weathering with reference to dams and reservoirs.	10M	CO1	BT4
4	Describe the important physical properties of minerals that are commonly studied for their identification.	10M	CO2	BT3
OR				
5	Enumerate the properties of following ore forming minerals: (i) Galena (ii) Pyrolusite (iii) Bauxite (iv) Hematite.	10M	CO2	BT3
6	Present about the uses of major rock types and explain in detail the classification of sedimentary rock.	10M	CO3	BT3
OR				
7	Write in detail about the following minerals: (i) Laterite (ii) Quartzite and (ii) Slate.	10M	CO3	BT3

8	Explain, with neat sketches, the principal types of Faults as recognized on the basis of apparent movement and mode of occurrence.	10M	CO4	BT4
	OR			
9	Explain the following: (a) Ground water table (b) Locating the epicentre of an earth quake.	5M 5M	CO4	BT3
10	Himalayas is highly tectonically active region; Hydro Power construction requires tunnelling of rocks in the region. What are the problems that are expected during the construction of tunnels and how you can avoid the arising issues?	10M	CO5	BT4
	OR			
11	Discuss the geological conditions necessary for the stability of a dam and life of a reservoir.	10M	CO5	BT3