

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

Sixth Semester

Civil Engineering

AG3601 – Engineering Geology

Regulations - 2021

Duration: 3 Hrs

Maximum: 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	Draw the internal structure of the earth.	L1	1	2
2.	Write short note on Sea cliff.	L2	1	2
3.	Write the classification of petrology.	L2	2	2
4.	Bring out the differences between granite and slate.	L1	2	2
5.	Using a diagram explain the term Dip.	L2	3	2
6.	Define the term Rock Quality designation.	L2	3	2
7.	Distinguish between geological map and topographical map	L3	4	2
8.	How will you evaluate the resistivity for sub-surface investigation?	L3	4	2
9.	Summarize the various coastal protections.	L2	5	2
10.	Write down the objectives of geological investigation of tunnel construction?	L2	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a Discuss about theory of plate tectonics and its relevance to Earthquakes.	L2	1	16
	Or			
	b Discuss about the origin and occurrence of groundwater, highlighting the types of aquifer with neat diagram.	L2	1	16
12.	a Summarize about clay minerals and their civil engineering significances.	L2	2	16
	Or			
	b List the various field and laboratory tests to determine the engineering properties of rocks.	L2	2	16

13.	a	Define fault. Explain in detail with neat sketches on i) Normal fault. ii) Reverse fault. iii) Strike-slip fault. iv) Oblique fault.	L3	3	16
		Or			
	b	Briefly explain for the following (i) Rock mass rating. (ii) Geological strength index.	L3	3	16
14.	a	Explain in detail about seismic survey investigation to predict the groundwater vulnerability.	L4	4	16
		Or			
	b	Explain in detail about the principle and function of Ground penetration radar with civil engineering applications.	L4	4	16
15.	a	Discuss about the geological site selection criteria for Dam and reservoir projects.	L5	5	16
		Or			
	b	Enumerate with appropriate figures on the types, causes of landslides and their mitigation measures.	L5	5	16