



**Third Semester B.E/B.Tech. Degree Examination, Dec.2024/Jan.2025**  
**Engineering Geology**

Max. Marks:100

Module – 1			M	L	C
1	a.	Explain importance of geology in Civil Engineering.	5	L2	CO1
	b.	Describe internal structure of earth with labelled sketch.	10	L2	CO1
	c.	What is land slide? Explain causes at landslides.	5	L1	CO1
<b>OR</b>					
2	a.	Discuss causes and effect of earthquake.	7	L2	CO2
	b.	What is Tsunami? Add a note on mitigation of Tsunami.	7	L3	CO3
	c.	Explain causes and types of volcanoes.	6	L2	CO2
<b>Module – 2</b>					
3	a.	What is mineral? Explain properties of mineral.	8	L2	CO2
	b.	Explain different types of igneous rocks.	6	L2	CO2
	c.	What is metamorphism? Discuss types of metamorphism.	6	L2	CO2
<b>OR</b>					
4	a.	Describe properties of following minerals : i) Orthoclase ii) Biotite iii) Haematite.	6	L2	CO2
	b.	Enumerate stages of development of sedimentary rock.	7	L2	CO2
	c.	Discuss important uses of different rock type.	7	L2	CO2
<b>Module – 3</b>					
5	a.	With a neat sketch explain soil profile.	7	L2	CO3
	b.	What is weathering? Explain types of weathering.	8	L2	CO3
	c.	Discuss classification of different soil type.	5	L2	CO3
<b>OR</b>					
6	a.	Explain classification of soil based on grain size.	7	L2	CO3
	b.	Discuss the effect of weathering on monumental rock.	7	L2	CO3
	c.	Write a note on : i) Drifted soil ii) Laterite soil.	6	L1	CO3

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## Module – 4

7	a.	Explain different rock deformation and causes.	8	L2	CO4
	b.	A bed of lime stone is dip $25^\circ$ East and it has width of outcrop – 160 m. Determine true and vertical thickness.	6	L3	CO4
	c.	What is fault? Explain type of fault.	6	L2	CO4

OR

8	a.	Discuss feasibility of Dam site in folded and faulted region.	7	L2	CO4
	b.	A bed of shale is dipping maximum of $45^\circ$ along S $60^\circ$ E. Determine the amount and apparent dip along S $70^\circ$ E.	6	L2	CO4
	c.	Write a note on : i) Dip and strike ii) Out crip.	7	L2	CO4

## Module – 5

9	a.	Explain different water bearing formations.	8	L2	CO5
	b.	What an Aquifer? Discuss types of aquifer.	8	L2	CO5
	c.	Write a note on co-efficient of permeability.	4	L1	CO5

OR

10	a.	Explain electrical resistivity survey method in ground water exploration.	12	L2	CO5
	b.	Discuss factors affecting on permeability of rocks.	8	L2	CO5

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