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**Third Semester B.E./B.Tech. Degree Supplementary Examination,  
June/July 2024  
Engineering Geology**

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.  
3. Missing data may be suitably assumed.*

Module – 1			M	L	C
<b>Q.1</b>	a.	Explain importance of Geology in civil engineering practices.	6	L2	CO1
	b.	Enumerate internal structure of the earth with labeled diagram.	7	L3	CO1
	c.	Explain causes and effect of earth quake.	7	L3	CO1
<b>OR</b>					
<b>Q.2</b>	a.	Discuss the internal and external geodynamic process and controlling factors.	6	L3	CO1
	b.	What is landslide? Explain types of landslides.	8	L3	CO1
	c.	Write a short note on: i) Cyclone    ii) Tsunami	6	L3	CO1
<b>Module – 2</b>					
<b>Q.3</b>	a.	Define mineral. Explain physical properties of minerals.	7	L3	CO2
	b.	Explain Rock cycle.	6	L3	CO2
	c.	What is Texture? Explain types of texture in igneous rocks.	7	L3	CO2
<b>OR</b>					
<b>Q.4</b>	a.	Explain classification of minerals based on importance and uses.	8	L3	CO2
	b.	Describe classification of igneous rocks based on depth of origin, silica percentage.	6	L3	CO2
	c.	Explain various uses of different rock types.	6	L3	CO2
<b>Module – 3</b>					
<b>Q.5</b>	a.	What is weathering? Explain types of weathering.	10	L3	CO3
	b.	Explain soil profile with labeled diagram.	6	L3	CO3
	c.	Write a note on weathering on monumental rocks.	4	L3	CO3
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## OR

Q.6	a.	Explain various types of soil.	6	L3	CO3
	b.	Describe soil classification based on grain size.	7	L3	CO3
	c.	Explain Laterite soil and its distribution.	7	L3	CO3

## Module – 4

Q.7	a.	What are the different types of rock deformations?	7	L3	CO3
	b.	Dip and strike problem having, sandstone exposed with apparent dip at S20°E along 35° and S40°W - 45°. Find true dip amount and direction.	7	L3	CO3
	c.	Write a note of dip and strike.	6	L3	CO3

## OR

Q.8	a.	What is Fault? Explain parts of fault.	7	L3	CO3
	b.	Discuss importance of folded structure in selection of dam site.	6	L3	CO3
	c.	What is Joint? Describe types of joints.	7	L3	CO3

## Module – 5

Q.9	a.	What is an aquifer? Explain types of aquifer.	8	L3	CO4
	b.	Discuss important water bearing properties of rocks.	8	L3	CO4
	c.	Explain porosity and types of porosity.	4	L3	CO4

## OR

Q.10	a.	Describe electrical resistivity method for groundwater prospecting.	10	L3	CO4
	b.	Explain: i) Co-efficient of permeability ii) Specific yield and specific retention.	10	L3	CO4

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