O.P.Code: 23CE0111	R23	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech.II Year II Semester Regular Examinations July/August-2025

ENGINEERING GEOLOGY

(Civil Engineering)

Time: 3 Hours **Max. Marks: 70**

PART-A

(Answer all the Questions **10 x 2 = 20** Marks)

1	a	Write the Scope of study of Geology.	CO1	L1	2M
	b	Which agent is most responsible for chemical weathering?	CO1	L1	2M
	c	Define a Rock.	CO2	L1	2M
	d	Write examples of sedimentary rocks.	CO2	L1	2M
	e	What do you understand the trems Strike & Dip?	CO3	L1	2M
	f	Define Fault.	CO3	L1	2M
	g	Define landslides.	CO5	L1	2M
	h	State the principle of the gravity method.	CO5	L1	2M
	i	What is a dam? Mention any two types of dams.	CO6	L1	2M
	j	What is the importance of tunnel lining?	CO6	L1	2M

PART-B

(Answer all Five Units **5 x 10 = 50** Marks)

UNIT-I

2		Describe the role of geology in the design and construction of dams, tunnels, and highways.	CO1	L2	10M

OR

3	a	Define geology and list out the different branches of geology.	CO1	L2	5M
	b	Explain the three main geological processes performed by rivers: erosion, transportation, and deposition.	CO1	L2	5M

UNIT-II

4	a	Define mineral and explain the various physical properties of minerals?	CO2	L2	5M
	b	Write the physical properties of Olivine and calcite.	CO2	L2	5M

OR

5	a	Define Petrology? Describe the classification of rocks.	CO2	L2	5M
	b	Describe the various types of Structures associated with Igneous rocks.	CO2	L2	5M

UNIT-III

6	a	Explain the following terms with neat sketches: i)Anticline And Syncline ii)symmetric and asymmetric fold.	CO4	L2	5M
	b	Classify and describe the different types of joints.	CO4	L2	5M

OR

7		Discuss the overall importance of understanding structural features like folds, faults, joints, and unconformities in civil engineering projects.	CO4	L4	10M

UNIT-IV

8	a	Importance of various geological factors which influence the movement of ground water.	CO5	L2	6M
	b	Compare the tectonic activity with shield areas and seismic belts.	CO5	L4	4M

OR

9	a	Define landslides. And explain classification of earth movements.	CO5	L2	5M
	b	Describe Magnetic method in terms of the principle, physical property, procedures, equipment and uses.	CO5	L3	5M

UNIT-V

10		Discribe and discuss the following: i)Geological consideration in the successful reservoir ii)Life of reservoir	CO6	L2	10M

OR

11	a	Describe the geological consideration for successful tunneling.	CO6	L2	5M
	b	Discuss the lithological and structural reasons that necessitate lining.	CO6	L2	5M

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