O.P.Code: 20CE0148	R20	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. IV Year I Semester Regular & Supplementary Examinations October/November-2025

ELEMENTS OF ROAD TRAFFIC SAFETY

Open Elective (OE) – III

Time: 3 Hours **Max. Marks: 60**

(Answer all Five Units **5 x 12 = 60** Marks)

		UNIT-I			
1		Analyze the various road geometric design elements and how they are related to cause Road accidents.	CO1	L3	12M
		OR			
2	a	Give the detailed notes on cost of road accidents.	CO1	L1	6M
	b	Apply your knowledge to suggest the preventive measures for road accidents by cyclist.	CO1	L2	6M
		UNIT-II			
3	a	What are the various ill-effects of parking? Write them in detail.	CO2	L1	6M
	b	Briefly explain about zoning and parking space requirement of IRC standards?	CO2	L2	6M
		OR			
4		Identify the various common methods in design of On-street parking with sketches.	CO2	L1	12M
		UNIT-III			
5	a	Explain briefly about the following terms with neat sketches: Carriageway width reduction transition markings.	CO3	L2	6M
	b	Explain briefly about the following terms with neat sketches: Obstruction approach markings.	CO3	L2	6M
		OR			
6		Briefly explain about the illumination of traffic rotaries with detailed sketch?	CO4	L2	12M
		UNIT-IV			
7	a	Write the importance of traffic signs.	CO5	L1	6M
	b	What are the various objectives in general principles of traffic signing?	CO5	L1	6M
		OR			
8		Explain with neat sketch the following signs: i) Advance direction signs ii) Overhead signs iii) Place identification signs	CO5	L2	12M
		UNIT-V			
9	a	What is meant by Signal Face, explain it with neat sketch?	CO6	L1	6M
	b	Explain the concept of illumination of signals with specifications.	CO6	L1	6M
		OR			
10	a	What is meant by signal approach dimensions and explain how to determine approach dimensions for a two phase cross-roads?	CO6	L1	8M
	b	The following table gives the flows in the arms of an intersection where a two phase signal is to be designed. Determine the proportion of dimensions of the approaches and the green times for the two phases	CO6	L3	4M

Arm	Flow(vehicle/hour)
North	4000
South	3800
East	1000
West	900

*** END ***