

Code: 19CE4801C

IV B.Tech - II Semester – Regular Examinations – MAY 2023

**ROAD SAFETY AUDITING
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

- Note: 1. This question paper contains two Parts A and B.
 2. Part-A contains 5 short answer questions. Each Question carries 2 Marks.
 3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 12 marks.
 4. All parts of Question paper must be answered in one place.

BL – Blooms Level

CO – Course Outcome

PART – A

		BL	CO
1. a)	What do you understand by collision diagram?	L1	CO1
1. b)	Write a formula for collision of parked vehicle before collision.	L1	CO2
1. c)	What is the manual used for Road Safety Audit (RSA)?	L1	CO3
1. d)	List out the elements of a road safety plan.	L1	CO4
1. e)	Write atleast two preventive measures for road accidents.	L1	CO5

PART – B

			BL	CO	Max. Marks
UNIT-I					
2	a)	What are the causes of road accidents? Explain in brief.	L2	CO1	6 M

	b)	Explain briefly about accident studies and records.	L4	CO1	6 M
OR					
3	a)	Explain the recent road traffic accidents scenario of India.	L4	CO1	6 M
	b)	What do you mean by condition diagram? Explain briefly.	L2	CO1	6 M
UNIT-II					
4	a)	What is black spot? How to diagnose crash problem? What are the solutions for crash?	L6	CO2	6 M
	b)	A vehicle of weight 2.0 tonne skids through a distance equal to 40m before colliding with another parked vehicle of weight 1.0 tonne. After collision both the vehicle skid through a distance equal to 12m before stopping. Compute initial speed of the moving vehicle. Assume coefficient of friction as 0.5.	L4	CO2	6 M
OR					
5	a)	Describe the details included in typical accident report form and interpretation of crash data.	L5	CO2	6 M
	b)	Explain briefly about multiple linear methods in crash data analysis.	L4	CO2	6 M

UNIT-III					
6	a)	Explain with flow chart RSA process and significance of all stages.	L5	CO3	6 M
	b)	Illustrate briefly regarding the IRC practices.	L5	CO3	6 M
OR					
7	a)	What are the essential requirements for selection of Road safety audit team?	L2	CO3	6 M
	b)	What is Road Safety Audit? State the specific aims of RSA.	L5	CO3	6 M
UNIT-IV					
8	a)	Explain about elements of road safety plans.	L4	CO4	6 M
	b)	Explain briefly about various strategies for Road safety improvement.	L4	CO4	6 M
OR					
9	a)	What do you understand by Multi-casual dynamic systems approach to safety? Explain briefly.	L4	CO4	6 M
	b)	How do you evaluate the safety on a road?	L5	CO4	6 M
UNIT-V					
10	a)	Discuss about various traffic calming measures.	L5	CO5	6 M
	b)	What are the legislative measures for making effective road safety program?	L4	CO5	6 M
OR					

11	a)	Discuss about the role of 3 Es for controlling road traffic accidents.	L4	CO5	6 M
	b)	Discuss the Preventive and speed control measures on road.	L5	CO5	6 M