

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION – SUMMER 2025

Subject Code:3170214

Date:08-05-2025

Subject Name:Vehicle and Road Safety

Time:02:30 PM TO 05:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	MARKS
<b>Q.1</b> (a) Why do we need vehicle safety?	<b>03</b>
(b) Explain the Causes of rear-end collision.	<b>04</b>
(c) Write a short note on Bumper design for vehicle safety.	<b>07</b>
<b>Q.2</b> (a) Explain Driving safety, Conditional safety, and Operating safety.	<b>03</b>
(b) Explain traffic rules and regulations.	<b>04</b>
(c) List the vehicle safety system and explain any two of them.	<b>07</b>
<b>OR</b>	
(c) Write a short note on Vehicle safety rating in India.	<b>07</b>
<b>Q.3</b> (a) Explain Exterior safety and Interior safety.	<b>03</b>
(b) Discuss traffic rules and driving behavior.	<b>04</b>
(c) Explain the road traffic accident scenario in India.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Explain the role of police in accident prevention.	<b>03</b>
(b) Discuss road safety and its importance.	<b>04</b>
(c) Describe various front and rear object detection systems in detail.	<b>07</b>
<b>Q.4</b> (a) What is people's responsibility for accident prevention?	<b>03</b>
(b) Explain provisions for disabled persons according to road safety.	<b>04</b>
(c) Explain the antiskid braking system.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) What is the role of policymakers and politicians in the prevention of accidents?	<b>03</b>
(b) Explain the antiskid braking system.	<b>04</b>
(c) Discuss the four E's of accident prevention.	<b>07</b>
<b>Q.5</b> (a) What are the Government's efforts on road safety?	<b>03</b>
(b) Explain preschool road safety education in detail.	<b>04</b>
(c) Discuss crashes related to pedestrians and bicyclists.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Explain the importance of efforts done by Drivers and Official road safety body for the road safety.	<b>03</b>
(b) Write a note on the celebration of the road safety seminar organized by students.	<b>04</b>
(c) Explain the 5 P's of Road safety education.	<b>07</b>

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