

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2022****Subject Code:3170214****Date:16-01-2023****Subject Name:Vehicle and Road Safety****Time:10:30 AM TO 01:00 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.

		<b>MARKS</b>
<b>Q.1</b>	(a) Explain the concept of vehicle safety with its importance.	<b>03</b>
	(b) Discuss on road traffic accidents scenario in India.	<b>04</b>
	(c) Explain Bumper design for the vehicle safety.	<b>07</b>
<b>Q.2</b>	(a) Differentiate between active safety and passive safety.	<b>03</b>
	(b) Discuss on the people awareness about the rules and regulations of traffic control.	<b>04</b>
	(c) Write a short note on crash test.	<b>07</b>
	<b>OR</b>	
	(c) Describe antiskid braking system with neat diagram.	<b>07</b>
<b>Q.3</b>	(a) What is road safety? Why it is needed?	<b>03</b>
	(b) Describe the causes of rear end collision.	<b>04</b>
	(c) Explain object detection system with braking system interactions.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Give the police responsibilities for the accident preventions.	<b>03</b>
	(b) Justify traffic rules and driving behavior.	<b>04</b>
	(c) Discuss on crashes related to pedestrian and bicyclists.	<b>07</b>
<b>Q.4</b>	(a) What are the provisions for disabled person according to road safety?	<b>03</b>
	(b) Give some examples of the presentations on the road safety educations.	<b>04</b>
	(c) Describe the four E's of Accidents prevention.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Write the characteristics of accidents.	<b>03</b>
	(b) Explain Collapsible steering column.	<b>04</b>
	(c) Explain five P's of Road safety education.	<b>07</b>
<b>Q.5</b>	(a) Describe the importance of efforts done by teachers and parents for the road safety.	<b>03</b>
	(b) Explain pre-school road safety education in details.	<b>04</b>
	(c) Discuss about the efforts done by the Government on Road Safety.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Discuss about the responsibilities of Politicians and Community members for the road safety.	<b>03</b>
	(b) Write a short note on the celebration of road safety week.	<b>04</b>
	(c) Discuss on Multidisciplinary approach to planning for traffic safety and injury control	<b>07</b>

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