

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2020****Subject Code:2170207****Date:21/01/2021****Subject Name:Two and Three Wheeler Technology****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
<b>Q.1</b>	(a) Draw the layout of two wheelers.	<b>03</b>
	(b) Write a short note on cooling system in two wheeler.	<b>04</b>
	(c) Explain selection criteria and design considerations for two wheeler	<b>07</b>
<b>Q.2</b>	(a) What are the possible causes of more fuel consumption in two wheeler and give its remedies.	<b>03</b>
	(b) Explain front and rear lighting system of three wheeler.	<b>04</b>
	(c) Explain preventive maintenance in two and three wheelers.	<b>07</b>
<b>Q.3</b>	(a) Differentiate between tube tyre and tubeless tyre.	<b>03</b>
	(b) Draw the valve timing diagram for 4 stroke petrol engine and port diagram for 2 stroke petrol engine.	<b>04</b>
	(c) Explain shock absorber construction and working principle.	<b>07</b>
<b>Q.4</b>	(a) Differentiate between spoke wheel and alloy wheel.	<b>03</b>
	(b) Explain in detail with diagram Disc brake for two wheelers.	<b>04</b>
	(c) Define scavenging? Explain any one method with neat sketch.	<b>07</b>
<b>Q.5</b>	(a) What are the Special requirements for Racing bikes	<b>03</b>
	(b) Which modification is required to use CNG in three wheeler.	<b>04</b>
	(c) Explain Kick start mechanism for two wheeler.	<b>07</b>
<b>Q.6</b>	(a) Differentiate between Single plate and multi plate clutch.	<b>03</b>
	(b) Explain construction of handle bar used in motorcycles.	<b>04</b>
	(c) Explain construction of handle bar used in motorcycles. Also list down some of the standard size parameters.	<b>07</b>
<b>Q.7</b>	(a) Explain warning indicator used in two wheeler.	<b>03</b>
	(b) Write a short note on CVT-Continuously Variable Transmission of Two-wheeler.	<b>04</b>
	(c) Explain Hand Lever & Rope drive type starting mechanism for three wheeler.	<b>07</b>
<b>Q.8</b>	(a) Explain gear shifting mechanism in bike.	<b>03</b>
	(b) Discuss the working of electric horn used in two wheelers.	<b>04</b>
	(c) What is the purpose of helmet and explain different types of helmets.	<b>07</b>

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