

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2024****Subject Code:3160212****Date:24-05-2024****Subject Name:Two and Three Vehicle Technology****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.

MARKS

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|------------|---|-----------|
| Q.1 | (a) Explain scavenging used in two wheeler. | 03 |
| | (b) Briefly explain Construction details of tires with neat sketch. | 04 |
| | (c) Explain the construction and working of lead-acid battery. | 07 |
| OR | | |
| Q.2 | (a) Explain Dog clutch with neat sketch. | 03 |
| | (b) Discuss the working of electric horn used in two wheelers. | 04 |
| | (c) Explain the disc brake used in bikes with neat sketch. | 07 |
| OR | | |
| Q.3 | (a) Draw the brake circuit layout for two and three wheeler. | 03 |
| | (b) Explain the port timing diagram for two stroke engine. | 04 |
| | (c) Explain different cranking mechanism employed in two and three wheeler. | 07 |
| OR | | |
| Q.3 | (a) Explain gear shifting mechanism in bike. | 03 |
| | (b) Draw the lighting diagram for two-wheeler. | 04 |
| | (c) Explain the working of differential in three wheelers with sketch. | 07 |
| Q.4 | (a) Differentiate between tube tyre and tybeless tyre. | 03 |
| | (b) Discuss the modification required for CNG conversion. | 04 |
| | (c) Explain Construction and working of a carburetor with diagram. | 07 |
| OR | | |
| Q.4 | (a) What ate the possible causes of more fuel consumption in two wheeler and give its remedies. | 03 |
| | (b) Write down merits and demerits of shaft drive over chain drive. | 04 |
| | (c) Explain preventive maintenance in two and three wheelers. | 07 |
| Q.5 | (a) What is the importance of side car in two wheeler? | 03 |
| | (b) Justify the need of multi-plate clutch in motor cycle. | 04 |
| | (c) Explain front telescopic suspension system with sketch. | 07 |
| OR | | |
| Q.5 | (a) Compare chain drive and gear drive for two wheeler. | 03 |
| | (b) Explain constant mesh gear box with neat sketch. | 04 |
| | (c) Explain starting mechanism for two wheeler vehicles. | 07 |