

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI EXAMINATION – SUMMER 2025****Subject Code: 3160210****Date:22-05-2025****Subject Name: Vehicle Maintenance and Garage Practice****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**

**Q.1** (a) Discuss very briefly about daily and weekly periodic checks required for a car **03**  
 (b) What is maintenance? List down different type of maintenance. **04**  
 (c) What is vehicle breakdown? Discuss causes and disadvantages of vehicle breakdown **07**

**Q.2** (a) List out different type of measuring instruments used in automobile workshop. **03**  
 (b) What would be the possible differences between EV and Conventional vehicle service station? **04**  
 (c) Discuss advantages and disadvantages of an authorized service station and a private service station. **07**

**OR**

(c) What is Job Card? What is the importance of it? Prepared job card for servicing of Hybrid car. **07**

**Q.3** (a) Explain Camber angle, Caster angle and Toe in **03**  
 (b) What do you mean by steering geometry? Discuss any two terms in detail. **04**  
 (c) Discuss the overhauling of gear box in detail **07**

**OR**

**Q.3** (a) What is valve tapping? **03**  
 (b) Discuss the brake bleeding procedure in detail **04**  
 (c) Explain the procedure of overhauling & diagnosis of clutch assembly **07**

**Q.4** (a) What do you mean by carburetor tuning process? **03**  
 (b) What do you mean by balancing? Give their types. **04**  
 (c) Which are the different tests carried out for testing brakes? **07**

**OR**

**Q.4** (a) Discuss the overhauling of differential in detail **03**  
 (b) Discuss the role of service advisor for automobile workshop **04**  
 (c) Discuss various stages of painting process for passenger car. **07**

**Q.5** (a) Explain Tyre rotation **03**  
 (b) Enlist the possible causes and remedies for hard shifting of gear and Transmission stick in gear **04**  
 (c) Give detail maintenance & repair of electrical and ignition system. **07**

**OR**

**Q.5** (a) Explain cylinder Honing process. **03**  
 (b) What do you mean by clutch juddering? Discuss its possible causes and remedies. **04**  
 (c) Which are the different causes for engine does not start? **07**

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2024****Subject Code:3160210****Date:17-05-2024****Subject Name:Vehicle Maintenance and Garage Practice****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 Preventive Maintenance with advantages (b) Explain two measuring and gauging instruments with diagrams (c) Prepare a sample job card for a car with necessary details	<b>03</b> <b>04</b> <b>07</b>
<b>Q.2</b>	(a) Discuss criteria and requirements of an automotive service station (b) What would be the possible differences between EV and Conventional vehicle service station (c) Draw a complete layout of a modern automotive service station	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
	(c) Discuss about different types of vehicle document and information available in vehicles	<b>07</b>
<b>Q.3</b>	(a) Prepare a periodic maintenance schedule for suspension system (b) Discuss possible causes and remedies for excessive fuel consumption in fuel (c) Explain step by step procedure of crank shaft servicing	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain Camber angle, Caster angle and Toe in (b) Describe maintenance and overhauling of cylinder head (c) Explain maintenance and overhauling process of propeller shaft	<b>03</b> <b>04</b> <b>07</b>
<b>Q.4</b>	(a) Explain valve timing adjustment (b) Explain cylinder honing process and why it is required? (c) Explain the procedure of overhauling and diagnosis of clutch assembly.	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) How one can improve the Tyre life in four wheeler? (b) Explain function of lubrication system (c) Explain Brake bleeding procedure	<b>03</b> <b>04</b> <b>07</b>
<b>Q.5</b>	(a) Explain Tyre rotation (b) Enlist the possible causes and remedies for hard shifting of gear and Transmission stick in gear (c) Explain wheel balancing and wheel alignment	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Explain painting process of vehicles (b) Draw the trouble shooting chart for any four wheeler (c) Explain Lubrication and Maintenance of suspension system	<b>03</b> <b>04</b> <b>07</b>

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**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2023****Subject Code:3160210****Date:06-07-2023****Subject Name:Vehicle Maintenance and Garage Practice****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 Preventive Maintenance with advantages (b) Explain two measuring and gauging instruments with diagrams (c) Prepare a sample job card for a car with necessary details	<b>03</b> <b>04</b> <b>07</b>
<b>Q.2</b>	(a) Discuss criteria and requirements of an automotive service station (b) What would be the possible differences between EV and Conventional vehicle service station? (c) Draw a complete layout of a modern automotive service station	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
	(c) Discuss about different types of vehicle document and information available in vehicles	<b>07</b>
<b>Q.3</b>	(a) Prepare a periodic maintenance schedule for suspension system (b) Discuss possible causes and remedies for excessive fuel consumption in fuel (c) Explain step by step procedure of crank shaft servicing	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain Camber angle, Caster angle and Toe in (b) Describe maintenance and overhauling of cylinder head (c) Explain maintenance and overhauling process of propeller shaft	<b>03</b> <b>04</b> <b>07</b>
<b>Q.4</b>	(a) Explain valve timing adjustment (b) Explain cylinder honing process and why it is required? (c) Explain the procedure of overhauling and diagnosis of clutch assembly.	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) How one can improve the Tyre life in four wheeler? (b) Explain function of lubrication system (c) Explain Brake bleeding procedure	<b>03</b> <b>04</b> <b>07</b>
<b>Q.5</b>	(a) Explain Tyre rotation (b) Enlist the possible causes and remedies for hard shifting of gear and Transmission stick in gear (c) Explain wheel balancing and wheel alignment	<b>03</b> <b>04</b> <b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Explain painting process of vehicles (b) Draw the trouble shooting chart for any four wheeler (c) Explain Lubrication and Maintenance of suspension system	<b>03</b> <b>04</b> <b>07</b>

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2022****Subject Code:3160210****Date:03/06/2022****Subject Name:Vehicle Maintenance and Garage Practice****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.

**Q.1** (a) Explain different types of maintenance **03**  
 (b) What are the requirements and important of vehicle maintenance and service? **04**  
 (c) Explain in brief daily, weekly and monthly maintenance schedule. **07**

**Q.2** (a) List of different measuring instruments for wear. Explain any one of them **03**  
 (b) Explain volumetric methods for fuel measurement. **04**  
 (c) Prepare a Layout of modern service station. Mention activity of each work base. **07**

**OR**

(c) What is Job Card? What is the importance of it? Prepared job card for servicing of Honda activa. **07**

**Q.3** (a) Give comparison between different types of service stations. **03**  
 (b) Explain service procedure of cylinders in detail. **04**  
 (c) Discuss the overhauling of gear box in detail. **07**

**OR**

**Q.3** (a) Explain the wheel balancing procedure in detail. **03**  
 (b) Explain the servicing procedure of cylinder block. **04**  
 (c) Explain various tests carried out on diesel injector in detail. **07**

**Q.4** (a) Discuss the overhauling of differential in detail. **03**  
 (b) What do you mean by steering geometry? Discuss any two terms in detail. **04**  
 (c) Which are the different tests carried out for testing brakes? **07**

**OR**

**Q.4** (a) What do you mean by chassis lubrication? Discuss its importance. **03**  
 (b) Discuss the role of service advisor for automobile workshop. **04**  
 (c) Discuss various stages of painting process for passenger car. **07**

**Q.5** (a) Which are the different tests carried out for measuring brake efficiency of any vehicle? **03**  
 (b) What do you mean by clutch juddering? Discuss its possible causes and remedies. **04**  
 (c) Discuss the brake bleeding procedure in detail. **07**

**OR**

**Q.5** (a) Discuss the possible causes for clutch slipping. **03**  
 (b) Draw the trouble shooting chart for any four wheelers. **04**  
 (c) Which are the different causes for engine does not start? **07**

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