

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-VI (NEW) EXAMINATION – WINTER 2024****Subject Code:3160210****Date:25-11-2024****Subject Name:Vehicle Maintenance and Garage Practice****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.

- Q.1** (a) Which kind of maintenance is more important? why? **03**  
 (b) What are the differences in Garage & Service Station. **04**  
 (c) If your vehicle has troubles of hard steering and excessive tyre wear, what could be the causes and remedies of the problem. **07**

- Q.2** (a) Discuss criteria and requirements of a doorstep service station **03**  
 (b) What would be the possible differences between EV and Conventional vehicle service station **04**  
 (c) Draw a complete layout of a modern automotive service station for Hybrid vehicles **07**

**OR**

- (c) Which are the checkings to be done during daily, weekly and monthly maintenance of a vehicle? Discuss in brief. **07**
- Q.3** (a) What is back lash in gears? How it can be measured and how it can be adjusted? **03**  
 (b) Discuss possible causes and remedies of fuel pump failure. **04**  
 (c) List down different servicing tools and equipment used in automobile garage. Explain any two in detail with suitable sketches. **07**

**OR**

- Q.3** (a) Prepare a periodic maintenance schedule for final drive. **03**  
 (b) Describe maintenance and overhauling of cylinder head **04**  
 (c) Explain step by step procedure of crank shaft servicing. **07**
- Q.4** (a) Explain understeer and oversteer effects in a vehicle. **03**  
 (b) Discuss the overhauling of differential in detail. **04**  
 (c) Explain the procedure of overhauling and diagnosis of clutch assembly. **07**

**OR**

- Q.4** (a) Explain Tyre rotation **03**  
 (b) Explain the process of denting for a vehicle. **04**  
 (c) Explain causes for Engine overheating. **07**
- Q.5** (a) How one can improve the Tyre life in four-wheeler? **03**  
 (b) What do you mean by clutch juddering? Discuss its possible causes and remedies **04**  
 (c) What is job card? Prepare sample job card for Car having regular service and problem of engine overheating **07**

**OR**

- Q.5** (a) What are the different causes of corrosion on painted body? **03**  
 (b) Discuss about different types of vehicle documents and information available in them. **04**  
 (c) Explain Lubrication and Maintenance of suspension system **07**

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