

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER 2013****Subject Code: 160204****Date: 03-06-2013****Subject Name: Vehicle Maintenance and Garage Practice****Time: 10.30 am - 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.

- Q.1** (a) What is the role of predictive, preventive and breakdown maintenance? Explain each in detail. **07**
- (b) Discuss different checking to be worked out during daily, weekly and monthly maintenance. **07**

- Q.2** (a) Explain following steering geometry with suitable sketches. Toe in, toe out, camber, caster, king pin inclination. **07**
- (b) What is meant by overhauling of an automobile vehicle? Explain different steps of overhauling process. **07**

OR

- (b) Explain function and operation of tyre changer, four post hoist, and electronic air inflator with suitable sketches. **07**

- Q.3** (a) Give detailed classification of servicing tools and equipments used in automobile garage. **07**
- (b) Explain function, working and construction of vernier caliper, micrometer and dial bore gauge with suitable diagrams. **07**

OR

- Q.3** (a) Explain overhauling process of cylinder head. **07**
- (b) Explain overhauling process of master cylinder. **07**

- Q.4** (a) Discuss probable causes and remedies of engine misfiring, and clutch slipping. **07**
- (b) If your vehicle has troubles of hard steering and excessive tyre wear; as an automobile engineer, which probable causes and remedies you would suggest? **07**

OR

- Q.4** (a) Draw the layout of a modern automobile service station and describe various activities carried in the same. **07**
- Q.4** (b) What do you mean by automobile workshop documentation and its records? Prepare a job card of a vehicle to be serviced. **07**

- Q.5** (a) With neat schematic diagram explain working of an air brake system showing all its components. **07**
- (b) Explain operation and maintenance of a differential with neat sketch. **07**

OR

- Q.5** (a) Discuss trouble shooting and diagnosis of noisy gear box operation and poor brakes. **07**
- (b) Explain warranty policy in the different cases and billing procedure of a vehicle in detail. **07**