

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VI EXAMINATION – WINTER 2015

Subject Code:160204**Date:14/12/ 2015****Subject Name: Vehicle Maintenance And Garage Practice****Time:2:30pm to 5:00pm****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) Differentiate Preventive Maintenance and Predictive Maintenance. Prepare check list for maintenance of four wheeler engine radiator and Tyre. **07**
- (b) Enlist the name of measuring instruments used for the following operations. **07**
- 1.To Check Strength of coolant
 2. To Check Wheel run out
 - 3.To Check Bearing clearance
 - 4.To Measure Cylinder bore wear
 - 5.To Check Driveshaft run out
 - 6.To Measure Power steering pump pressure
 - 7.To Measure Engine vibration
- Q.2** (a) Explain procedure for reconditioning and refinishing of engine cylinder. **07**
- (b) Describe the procedure for inspecting and repair cracks, found in cylinder head. **07**
- OR**
- (b) Describe the checks and measurements to make when inspecting engine valves. **07**
- Q.3** (a) What is on-board computer system diagnosis for a car with MPFI system? Explain the procedure for the same. **07**
- (b) Enlist the various engine troubles that can be caused by Carburetor in vehicle. **07**
- OR**
- Q.3** (a) Explain hydraulic brake bleeding procedure with pressure brake bleeder and manual bleeding. **07**
- (b) Explain procedure for repairing a tire. **07**
- Q.4** (a) Explain the procedure to diagnose the wheel imbalance. Explain the procedure for steel wheel and alloy wheel balancing. **07**
- (b) Explain four wheel alignment procedures. **07**
- OR**
- Q.4** (a) Define following troubles and enlist the possible causes for given trouble. **08**
1. Wheel shimmy
 2. Vehicle wander
- (b) Write down the function of the following vehicle service and repair equipments. **06**
1. Two post lift
 2. Tyre changer
 3. Diesel Fuel pump test bench
- Q.5** (a) Differentiate service station and Garage based on any seven aspects. **07**
- (b) Draw layout of standard service station for four wheeler. Explain the activities are performed at each service bay. **07**

OR

- Q.5 (a)** A customer wants to bring a car in for service. Describe the steps or service operations performed. **06**
- (b)**
1. A student in an automotive brakes class installed disc brakes in place of drum brakes in a car. He used the original master cylinder. What kind of problem he may face? What is the solution? **08**
 2. A front wheel bearing failed of a car. A technician replaced a front wheel bearing and returned the car to the customer. One month later, when customer was driving the car when he drove over a small pothole in the road and the spindle broke off just behind the old bearing .He was not travelling fast. What was the mistake made by technician?
 3. A Technician did a clutch job during which he installed the flywheel with his impact wrench. He test drove the car upon completion of the job and returned it to the customer. The customer returned the next week complaining of clutch slippage and oil leakage from the bottom of the clutch housing. What was the mistake made by technician?
 4. The complaint by customer is that, car pulls to one side while braking, Write down your diagnosis.
