

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – WINTER • 2013

Subject code: 1721106

Date: 07-01-2014

Subject Name: Automobile Maintenance & Pollution Control

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)** Which are the categorized main parts of automobile maintenance activities? Describe briefly about those parts. **07**
- (b)** Explain the maintenance, repair and servicing of automotive vehicle clutches. **07**
- Q.2 (a)** Discuss the various troubles of a valve mechanism of I.C. Engine in brief with remedies. **07**
- (b)** Write a short note on Continuously Variable Transmission System (CVT) **07**
- OR**
- (b)** Write a brief note on servicing of hydraulic brake systems. **07**
- Q.3 (a)** Explain about the need, working principle and procedure of a wheel alignment in automobile workshop. **07**
- (b)** Discuss in detail about chassis frame alignment. **07**
- OR**
- Q.3 (a)** Enlist anti corrosion additives & anti freezing solutions commercially available in market, Discuss their importance in vehicles. **07**
- (b)** Write a short note on maintenance of MPFI. **07**
- Q.4 (a)** Discuss the maintenance and care of storage batteries, explain battery testing methods **07**
- (b)** Explain maintenance and servicing of Power steering systems. **07**
- OR**
- Q.4 (a)** Explain with a neat sketch exhaust gas recirculation (EGR). **07**
- (b)** Explain potential methods of solid waste disposal. **07**
- Q.5 (a)** Discuss on Indian pollution norms as per Central Motor Vehicle Rules (C.M.V.R.). **07**
- (b)** How to carry out analysis of air pollutants which were produced due to automobile exhaust? Discuss it. **07**
- OR**
- Q.5 (a)** Write a short note on lubrication system services in automobile workshop. **07**
- (b)** What is catalytic converter? How does it work? **07**
