

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

Subject code: 1721106

Date: 27-06-2014

Subject Name: Automobile Maintenance & Pollution Control

Time: 02:30 pm - 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.**

- Q.1 (a)** What is Engine Maintenance? Why is it required? Explain schedule maintenance in detail. **07**
- (b)** Water comes out in petrol engine, does it call tuning? Explain briefly methods of tuning in petrol engine. Is it possible tuning in diesel engine? **07**
- Q.2 (a)** Sometimes there is a vibration on steering wheel, what is the main cause for it? Explain wheel balancing. **07**
- (b)** Explain various engine cleaning methods for engine components. **07**
- OR**
- (b)** What do you mean by smog ? Explain formation of smog in environment. **07**
- Q.3 (a)** Explain Continuous variable transmission system with sketch. **07**
- (b)** Write a short note on C.M.V.R pollution norms. **07**
- OR**
- Q.3 (a)** Explain catalytic converter with neat sketch. **07**
- (b)** What is the use of adding additives? Explain fuel additives used in petrol engine and diesel engine. **07**
- Q.4 (a)** Explain bleeding of brake with neat sketch. **07**
- (b)** Write a short note on maintenance of ignition system. **07**
- OR**
- Q.4 (a)** What do you mean by anti-freezing and anti corrosion additives used in SI and CI engine? Explain effects of anti-freezing and anti-additives on SI and CI engine. **07**
- (b)** What is the purpose of charcoal canister in SI Engine? Explain positive crankcase ventilation system with neat sketch. **07**
- Q.5 (a)** Explain maintenance and care of storage batteries. **07**
- (b)** What do you mean by Energy recovery? Why it is required? Explain Energy recovery from municipal and industrial solid waste. **07**
- OR**
- Q.5 (a)** Explain maintenance, servicing and repair of Constant mesh gear box. **07**
- (b)** What is the need of trouble shooting chart? Draw trouble shooting chart of hydraulic brakes for a car. **07**
