

Code: R7310302

R7

B.Tech III Year I Semester (R07) Supplementary Examinations, May 2013

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain with neat sketch the working principle of pressure lubrication systems.
(b) Describe the different types of piston engines.
- 2 (a) What are the requirements of fuel injection system? Explain in case of C.I. engines.
(b) Explain with the aid of neat diagram the working principle of distributor type fuel injection pump.
- 3 (a) Describe the operation of the thermostat. What is the main advantage of using a thermostat in the cooling system?
(b) What is the advantage of pressurized cooling? How pressurizing is accomplished?
- 4 (a) What are the different emission control systems used in SI engines?
(b) How evaporate emission control is achieved in SI engines?
- 5 Enumerate different types of fuel level indicating gauges. How do they differ in their working principle?
- 6 Describe the working of a synchromesh gear box with the help of a sketch.
- 7 State the principle and derive equation for correct steering of a vehicle. Hence draw Ackermann's steering mechanism.
- 8 Draw a simple diagram to show the layout of a hydraulically operated four wheel brake system and explain its working in detail?
