

R09

Code: 9A03606

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2014/2015

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 (a) What are the objectives of supercharging?
(b) Explain with a neat sketch the working principle of turbo charging of a single cylinder engine.
- 2 Illustrate with neat sketch the construction and working of constant vacuum carburetor.
- 3 (a) What is the function of the ignition system in a SI engine? Explain briefly.
(b) Explain with neat diagram the working of pressure cooling system.
- 4 (a) What are the sources of evaporate emission in petrol engines? How can it be controlled?
(b) Explain briefly the exhaust gas recirculation (EGR) device for the control of NOx.
- 5 What is the necessity of generator output control? Discuss the various methods of achieving the same.
- 6 What is Rear Axle? With neat sketch explain the different types of Rear axles.
- 7 What are the different types of steering gears used? Indicate their differences.
- 8 What are the essential differences between mechanical brakes and hydraulic brakes?
