

R09**Code: 9A03606**

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2015/2016

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain the concept of supercharging.
(b) What are the advantages and disadvantages of supercharging?
- 2 (a) Why is a carburettor needed in a petrol engine? Why not in diesel engine?
(b) Illustrate the construction and working of a fuel injector.
- 3 (a) What are the advantages of Battery Ignition system over Magneto coil ignition?
(b) Explain with a neat sketch the working principle of evaporative cooling system used in automobile.
- 4 Discuss briefly the following with regard to SI engines:
(a) Crankcase emission.
(b) Evaporative emission.
(c) Exhaust emission.
- 5 (a) What are the various types of starting drives in automobile engine?
(b) Explain with neat sketch any one type of starting drive.
- 6 What is function of Suspension system? Explain briefly air suspension system.
- 7 Differentiate between Elliot and reverse Elliot stub axles.
- 8 With a neat sketch, explain the construction and working of the Rigid Front Axle.
