

Code No: RT41031

R13

Set No. 3

IV B.Tech I Semester Regular Examinations, November - 2016

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any THREE questions from Part-B

PART-A (22 Marks)

1. a) Explain about oil filters? [4]
- b) Write about types of gear boxes? [4]
- c) Explain why do the front wheels have to toe-out in turns? [3]
- d) Explain about vacuum brakes? [4]
- e) Write about importance of the wind shield? [3]
- f) Write about the National pollution standards? [4]

PART-B (3x16 = 48 Marks)

2. a) Explain how the power can be transmitted in rear wheel drive by using a neat diagram? [8]
- b) What is crankcase ventilation? Explain positive crankcase ventilation system with a neat sketch. [8]
3. a) Write about single plate clutch and multi plate clutch in detail? [8]
- b) Explain about torque tube drive and universal joint with neat diagram? [8]
4. a) Explain the Ackermann Steering Mechanism? Write its relative merits? [8]
- b) Describe the cam and roller type of Steering Gear with neat diagram? [8]
5. a) Explain about independent suspension system? [8]
- b) Explain about bendix drive mechanism and solenoid switch? [8]
6. a) Write about engine specification with regard to speed? [8]
- b) Explain about suspension sensors in detail? [8]
7. a) Explain the procedure for concentration measurement of pollutants? [8]
- b) Write about service details of piston-connecting rod assembly? [8]