

Code: ME8T3B

IV B.Tech - II Semester – Regular Examinations – April 2016

**AUTOMOBILE ENGINEERING
(MECHANICAL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) Discuss the functions of the transmission system in automobiles. 7 M
- b) Clarify the understanding behind turbocharging and supercharging with neat sketches. 7 M
2. a) What are the common troubles which are likely to occur in a mechanical or an electrical fuel pump ? Describe also the probable reasons for the same. 7 M
- b) What is an injection timer? Explain its function and describe clearly how it performs the same. 7 M
3. a) What are the main components of water cooling system for an automotive engine? Describe these in detail. 7 M
- b) Discuss in detail various methods of contact breaker gap settings. 7 M
4. a) What is closed crankcase ventilation? Discuss in detail the two types of crankcase ventilation system used in automobiles. 7 M

- b) Describe the operation of MPFI system with neat diagram. 7 M
5. a) Discuss thoroughly an integrated starter. 6 M
- b) Write a comprehensive note on starting motor control switches. 8 M
6. a) Where and why do we use Multiplate clutch? Explain the constructional features and working of Multiplate dry clutch. 9 M
- b) Explain clearly the necessity of a transmission in a vehicle. 5 M
7. a) State the requirements of a steering system. 4 M
- b) What do you understand from the terms: oversteer, understeer, cornering power and slip angle? 10 M
8. a) What is the purpose of independent suspension? Explain various methods to achieve the same in front and rear axles of cars. 9 M
- b) Discuss various factors influencing braking effect. 5 M