Roll No. | | | | | | | | B |

B.E (Full Time) End Semester DEGREE EXAMINATION, NOV / DEC 2011

Seventh Semester / Mechanical Engineering

ME 501 – AUTOMOBILE ENGINEERING

(Regulation 2004)

Time : 3 Hours | Answer ALL Questions | Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. What is the function of a magneto ?
2. Why balancing of crankshaft is necessary?
3. What type carburetors are used in high speed petrol engines?
4. What is the function of a generator in automotive electrical system?
5. What is meant by a over drive?
6. What type of rear axle is used in modern heavy duty trucks?
7. What is the basic principle of a disc brake?
8. Define centre point steering.
9. Write the properties of natural gas for IC Engines?
10. What is a fuel cell? How it is used in automobile?

Part – B (5 x 16 = 80 marks)

11. a) Explain in detail about the various frames chassis and body types used for two, three and four wheeled light duty and heavy duty vehicles.

12. a) Explain in detail about the automotive multipoint fuel injection system and also state its performance and limitations.

OR

b) Explain in detail about the bendix type starter motor principle, constructions and working?

13. a) Explain the function of a fluid flywheel and also explain the energy storage and dissipation in it.

OR

b) Explain the constructions and working of synchromesh gear box used in heavy duty commercial vehicle.

14. a) Explain with a neat layout, the principle functions and advantages of power steering system used in modern vehicles.

OR

b) Explain the torsion bore suspension system in detail and also state its advantages.

15. a) Explain the working of a parallel type hybrid electric vehicle?

OR

b) Explain the usage of LPG in modern heavy duty commercial vehicle with necessary modification and layout.