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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year II Semester Examinations, May – 2013

Automobile Engineering

(Common to ME, MCT)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

- 1.a) What are the different types of chassis used in automobiles? With a neat diagram explain various parts of conventional type of chassis used in heavy vehicles.
- b) Why oil pump is required in lubrication system? With a sketch explain the oil pump construction and working principle. [15]
- 2.a) Explain the construction and working principle of carburetor used in SI engine.
- b) Discuss various components of Diesel injection system in CI engine. [15]
- 3.a) What are the types of engine cooling systems? Explain cooling system used in two wheelers.
- b) With a circuit diagram explain battery ignition system of SI engine. [15]
- 4.a) What are the merits and demerits of CNG and LPG gases used in automobiles?
- b) What are the international norms for automobile pollution control? Explain. [15]
- 5.a) With a circuit diagram explain battery charging circuit in automobile. State various components in charging circuit.
- b) Explain the process of measuring and displaying the engine temperature in automobile. [15]
- 6.a) With a neat sketch explain the working of multiplate clutch. State its advantages.
- b) Draw neat sketch of four speed constant mesh gear box and explain working principle. [15]
7. What are the different types of braking systems? Explain construction and working of disc brake used in automobiles. [15]
8. What is steering geometry? Explain various parameters in steering geometry. [15]
