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Name.....

Reg. No.....

**SEVENTH SEMESTER B.TECH. (ENGINEERING) (09 SCHEME) DEGREE
EXAMINATION, NOVEMBER 2016**

ME/PTME 09 705 L07—AUTOMOBILE ENGINEERING

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

1. Classify the automobiles.
2. List the functions of fuel pump used in engines.
3. Differentiate centrifugal and semi-centrifugal clutches.
4. What is a constant velocity universal joint ? List its types.
5. How the automobile wheels are designated ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.

6. Draw the layout of automobile chassis and discuss the different types of chassis briefly.
7. Discuss the battery ignition system.
8. Sketch and explain single plate clutch.
9. Explain the working principle of sliding mesh gearbox.
10. State the advantages and disadvantages tubeless tyres.
11. Discuss the working principle of power steering with neat sketches.

(4 × 5 = 20 marks)

Part C

Answer any four questions.

12. (a) Explain the various parts of an IC engine with neat sketches.

Or

- (b) Sketch and explain, how the valves are actuated in a four stroke petrol engine ?

13. (a) With a neat sketch explain the working of simple carburettor with neat sketch.

Or

- (b) Explain the different methods cooling the engines.

14. (a) Draw the schematic diagram of a fluid coupling and state the working principle.

Or

- (b) Discuss in-detail the construction and working of hydraulically operated braking system.

15. (a) With neat sketch explain the Ackermann's steering system.

Or

- (b) Discuss in-detail the constructional features of tubeless tyres for automotive use.

(4 × 10 = 40 marks)

