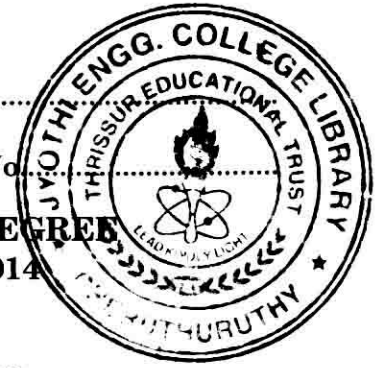


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Name.....

Reg. No.....



**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
[SUPPLEMENTARY] EXAMINATION, APRIL 2014**

(2009 Scheme)

ME/PTME 09 705 L07—AUTOMOBILE ENGINEERING

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all the questions.

Each question carries 2 marks.

1. What are the functions of piston rings ?
2. Sketch a simple carburettor and label its parts.
3. Explain the necessity of manual gear box.
4. What is toe in and toe out ?
5. Write the SAE classification of lubricating oil.

(5 × 2 = 10 marks)

Part B

Answer any four questions.

Each question carries 5 marks.

6. Briefly explain about the classification of automobiles.
7. Explain the starter mechanism of an automobile.
8. Write short notes on overdrives.
9. Differentiate between conventional tyres and tubeless tyres.
10. Sketch and explain a single plate clutch.
11. Explain the cooling system with sketches.

(4 × 5 = 20 marks)

Turn over

Part C

Answer all questions.

12. (a) (i) Explain a valve actuating mechanism with the help of a diagram. (6 marks)
- (i) Write short note on crank shaft. (4 marks)
- (b) (i) Write short notes on combustion chambers with sketches. (6 marks)
- (ii) Explain the types of inlet manifolds. (4 marks)
13. (a) Explain (i) MPFi system. (ii) CRDi system. (10 marks)
- Or*
- (b) Explain an electronic ignition system with a neat sketch. (10 marks)
14. (a) Sketch and explain a fluid coupling and a constant mesh gear box. (10 marks)
- Or*
- (b) Sketch and explain the construction and working of an AB8. (10 marks)
15. (a) (i) Explain a rack and pinion steering system. (5 marks)
- (ii) Explain a power steering system with a sketch. (5 marks)
- Or*
- (b) (i) Explain a Macpherson Strut shock absorber system. (6 marks)
- (ii) Discuss about wheel balancing. (4 marks)

[4 × 10 = 40 marks]