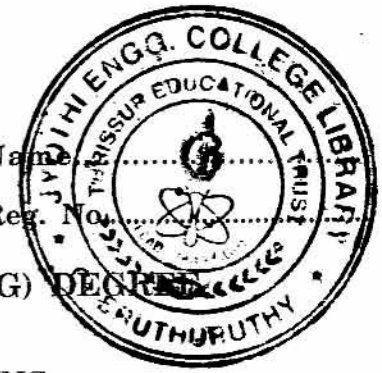


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Name

Reg. No.



**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, NOVEMBER 2013**

ME 09 705 L07—AUTOMOBILE ENGINEERING

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

1. What is the function of cylinder liner ?
2. Explain the function of piston rings.
3. What is meant by firing order of an engine ?
4. What is the use of a universal joint ?
5. What is meant by caster and camber ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.

6. Explain about valve actuating mechanism.
7. Explain about starter mechanism.
8. Sketch and explain a multiplate clutch.
9. Explain the various steering geometrics and their effects with the help of a diagram.
10. Briefly explain overdrives.
11. Compare conventional tube tyre and tubless tyre.

(4 × 5 = 20 marks)

Part C

12. (a) (i) Explain about combustion diameters of an engine. (6 marks)
- (ii) Explain the classification of an automobile. (4 marks)

Or

- (b) Explain the types of drives and chassis layout with neat diagrams. (10 marks)

13. (a) (i) Sketch and explain any modern carburettor. (5 marks)
- (ii) Explain a CRDi system with a sketch. (5 marks)

Or

- (b) Sketch and explain the cooling system and lubrication system of an engine. (10 marks)

Turn over

14. (a) Differentiate a constant mesh and sliding mesh gear box with the help of a diagram.

Or

- (b) Sketch and explain the construction and working of a hydraulic braking system.

(10 marks)

15. (a) Explain (i) Power steering system ; (ii) Torsion bar.

Or

- (b) Explain (i) Macpherson shock absorber ; (ii) Coil spring and leaf spring.

(10 marks)

[4 × 10 = 40 marks]