

No. of Questions :10]

[Total No. of Printed Pages :2

Roll No

FT - 304

B.E. III Semester

Examination, December 2012

Heavy Vehicle Automobile Engineering And Safety

Time : Three Hours

Maximum Marks : 70/100

Note: Attempt all questions.

UNIT I

1. (a) Define compression ratio. How does it affect the horse power of an engine.
- (b) Give classification of Internal combustion engine.

OR

2. (a) What are main parts of a friction clutch? Describe the function of each part.
- (b) Describe the construction and working of a single plate clutch with the help of neat sketch.

UNIT II

3. Describe the construction and working of a differential. ✓

OR

- 4 (a) Give a classification of brakes. ✓
- (b) What is the function of master cylinder in hydraulic Brakes. ✓

[2]

Unit - III

5. a) "Battery is the heart of electrical system in an automobile". Explain. ✓ 7
- b) Explain the chemical reactions in lead-acid battery during charging and discharging. ✓ 7

OR

6. a) What is the function of ignition system in a automobile. ✓ 7
- b) With the help of neat sketch describe the function of spark plug. ✓ 7

Unit - IV

7. Explain the construction and working of water tender. 14

OR

8. Describe briefly the different lubricating system. 14

Unit - V

9. Sketch and describe the working of a water cooling system. 14

OR

10. Describe the two mechanism of steering gear. 14
