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Roll No

# FT - 304 B.E. III Semester

Examination, December 2013

# Heavy Vehicle Automobile Engg. and Safety

Maximum Marks: 70

Note: Draw the sketches wherever necessary.

Write the answers to the points.

### Unit - I

- (a) What is the function of carburetor in S.I. engine? Explain any one type of it with diagram.
  - b) Write a note on combustion in C.I. Engines.

### OR

- a) What is the function of a clutch in an automobile? Explain any one type of it with constructional detail.
  - Explain the working of 4 stroke diesel engine by the help of diagram.

# Unit - II

What do you mean by suspension system of an automobile?
 What are its types used in automobiles. Explain any one with sketch.

# OR

 What are the effects of steering geometry on directional stability? Also explain castor, camber and king pin inclination with sketch.

#### Unit - III

- a) Explain the merits and demerits of electronic ignition system over battery ignition system.
  - b) Write a short note on euro norms adopted in India.

#### OR

Justify the statement "auto mobiles are one of the main cause of air pollution".

Also explain the pollution control techniques adopted now a days.

# Unit - IV rgpvonline.com

7. How automobile accidents can be prevented? What are the CMV rules regarding safety devices for drivers and passengers?

# OR

 Write in detail about construction, operation and applications of fire fighting vehicles.

# Unit - V

How an automobile can be made more safe for drivers and passengers? Write in detail about the safety devices and safety arrangements which can make an automobile more safe.

# OR

- 10. Write short note on any two from the following:
  - a) Rules and Regulations of RTO.
  - b) Construction and operation of fire boats.
  - c) Lubrication systems in automobiles.

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