Code No : 9A03606/R09

Set-2

B.Tech III Year II Semester Regular & Supplementary Examinations

April/May - 2013

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 Hours | Max. Marks: 70

*Answer any **FIVE** Questions*

*All Questions carry **equal** marks*

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1. (a) On a hillly track performance of a rear wheel driven vehicle is superior compare to front wheel drive vehicle. Explain the reasons.

   (b) Describe the different types of piston use in I.C engines.

2. (a) List the various parts of fuel feed system of a car. Draw a diagram showing these parts in respective positions.

   (b) What are the types of air filters? Describe with a neat sketch the working principle of oil bath type air filter.

3. (a) How engines are air-cooled? What is the purpose of the fins in an air-cooled system? What is the size and spacing of fins?

   (b) Sketch and explain the working principle of water pump.

4. (a) Compare the diesel engine and gasoline engine emissions.

   (b) Discuss the air pollution from gas turbines and compare it with emissions from petrol engines.

5. How does the bendix drive separate the starting motor from the engine flywheel after the engine starts?

6. Explain briefly the power transmission to the drive wheels using variable speed pulleys.

7. Write a short notes on following,

   (a) Centre point steering

   (b) Over steer and under steer

   (c) Backlash in steering gears.

8. What is the purpose of independent suspension? Is there Indian vehicle using this type of suspension for the front axle? If so mention the vehicle and explain the system fully.