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Printed Pages—2 **EME702**

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2767 **Roll No.** 1 0 0 3 2 4 0 1 1 5

B.Tech.

(SEM. VII) ODD SEMESTER THEORY EXAMINATION 2013-14

AUTOMOBILE ENGINEERING

Time : 3 Hours *Total Marks : 100*

Note :– Attempt **all** the questions. All questions carry equal marks. Use suitable diagram wherever necessary.

1. Write short notes on any **four** parts of the following : **(5×4=20)**
   (a) Firing order
   (b) Over drive
   (c) Weight transfer in Brake
   (d) Periodic maintenance
   (e) Fuel Feed pump
   (f) Universal joint.
2. Attempt any **two** parts of the following : **(10×2=20)**
   (a) Describe different types of Pistons. How does the 2-stroke piston differ from 4-stroke piston of a vehicle ?
   (b) What types of resistance are offered by a vehicle ? Explain with diagram.
   (c) Explain the working of constant mesh gear box with neat sketch. What are its advantages and limitations ?

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3. Attempt any **two** parts of the following : **(10×2=20)**

   (a) What are the requirements of good braking system ? Explain Hydraulic brake system and master cylinder used in it with proper diagram.

   (b) Why suspension system is required in Automobile ? Write different types of suspension system. Explain Telescopic Shock absorber with neat diagram.

   (c) Draw a layout of a four-wheeler automobile chassis. What design features are to be considered in making a chassis frame ?

4. Attempt any **two** parts of the following : **(10×2=20)**

   (a) What is the resistor bypass circuit ? Draw the wiring system of a typical passenger car lighting system.

   (b) Why electronic ignition system is preferred over conventional system ? Make a comparison between transistor assisted ignition system and capacitor discharge ignition system.

   (c) What is MPFI ? Explain with neat and clean diagram.

5. Attempt any **two** parts of the following : **(10×2=20)**

   (a) What are the properties of good coolant ? Explain thermosiphon cooling system with diagram.

   (b) List the properties of lubricating oil. Explain splash and pressure lubricating system with suitable sketch.

   (c) Write the names of various types of maintenance employed in an automobile. Explain breakdown maintenance in detail.

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