

ROLL No:

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Total number of pages:[2]

Total number of questions:06

**B.Tech. || ME || 5th Sem**  
**Automobile Engineering**  
**Subject Code: BTME-501A (Regular)**  
**Paper ID: \_\_\_\_\_**

Time allowed: 3 Hrs

Max Marks: 60

**Important Instructions:**

- All questions are compulsory
- Assume any missing data

**PART A (2×10)**

Q. 1. Short-Answer Questions:

All COs

- What is the function of damper?
- What do u mean by pre-ignition?
- What is Steering Ratio?
- What is an anti-freeze solution?
- Name different type of Gear Boxes.
- What is the function of Throttle valve?
- What is Catalytic converter?
- What is Torque converter.
- Define servo brakes?
- Which colored wires are used in lighting system of an automobile.

**PART B (8×5)**

- Q. 2.
  - Give comparison between a Petrol Engine and a Diesel Engine.
  - Explain briefly various factors are taken into consideration while describing an automobile.

CO1

OR

Give the detailed classification of I.C. Engines.

CO1

- Q. 3. Explain modern fuel injection systems

CO2

OR

What is the necessity of Engine Cooling. Explain various methods of Liquid Cooling briefly.

CO2

- Q. 4. Explain briefly the following:-

CO3

- Wishbone arm suspension
  - Interconnected Suspension System

OR

- How directional stability is achieved through Wheel alignment.

CO3

- Q. 5. Explain the working of:
  - Centrifugal clutch
  - Fluid Coupling

CO4

OR

P.T.O.

What are different types of Gear Boxes? Explain any two with the help of sketches. CO4

Q. 6. a) Explain briefly the various chassis defects. CO5

b) Explain briefly the various causes of clutch troubles. How can those be remedied

OR

Draw layout of Air brake system. Enumerate various possible faults in it and give their causes and remedies. CO5