

Code No.: ME732PE

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**CMR ENGINEERING COLLEGE: : HYDERABAD  
UGC AUTONOMOUS**

**IV-B.TECH-I-Semester End Examinations (Supply) - April- 2024  
AUTOMOBILE ENGINEERING  
(MECH)**

[Time: 3 Hours]

[Max. Marks: 70]

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A**

**(20 Marks)**

1. a) List the types of air filters in ignition system. [2M]
- b) State the types of automobile engines. [2M]
- c) What is the function of thermostat in cooling system? [2M]
- d) What is the significance of spark plug in ignition system? [2M]
- e) List the advantages of cone clutch. [2M]
- f) What are the functions of shock absorber? [2M]
- g) State the advantages of Ackerman steering mechanism. [2M]
- h) Differentiate between Mechanical and Pneumatic braking systems of an automobile. [2M]
- i) List the types of pollutants. [2M]
- j) Write a short note on the strategies to reduce the CO emissions from an Automobile engine. [2M]

**PART-B**

**(50 Marks)**

2. What are the advantages of MPFI used in S.I engines? Explain the working principle of it. [10M]
- OR**
3. What are the types of fuel pumps used in C.I engine? Explain its working principle with neat sketch. [10M]
  4. Explain the need of wiper, temperature indicator and fuel gauge in automobiles. [10M]
- OR**
5. Explain magneto coil ignition system with neat sketch and write its advantages. [10M]
  6. Explain the Independent suspension system with neat sketch. [10M]
- OR**
7. Explain Sliding mesh and synchro mesh gear boxes with neat sketch. [10M]
  8. Distinguish between Ackerman and Davis steering gear mechanism. [10M]
- OR**
9. Explain about Pneumatic and vacuum brakes and write its applications. [10M]
  10. What are various pollutants come out from the I.C engines and mention the methods to control. [10M]
- OR**
11. Explain multi point fuel injection for S.I engines. [10M]

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