

Code No.: ME732PE

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

IV-B.TECH-I-Semester End Examinations (Regular) - November- 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) What are the components of four-wheeler automobile? [2M]
- b) List out the types of injection systems used in C.I engines. [2M]
- c) List out the functions of radiator. [2M]
- d) What is meant by antifreeze solutions? [2M]
- e) Explain the functions of transmission system. [2M]
- f) What are the advantages of independent suspension system? [2M]
- g) What are the requirements of brake fluid? [2M]
- h) List out the different types of a steering gear mechanism. [2M]
- i) List out the various alternative fuels for an IC Engine. [2M]
- j) What are the advantages of multi point fuel injection of SI Engines [2M]

PART-B

(50 Marks)

2. Explain the types of injection systems with neat sketches. [10M]
- OR**
3. Write short notes on i) MPFI system and ii) GDI system. [10M]
4. Describe the working of battery ignition system with the help of sketch. [10M]
- OR**
5. Explain with a neat sketch, working of forced circulation system with its relative merits and demerits. [10M]
6. Enumerate the components of a suspension system and state their functions briefly. [10M]
- OR**
7. Explain about centrifugal clutch with neat diagram. [10M]
8. Draw the sketch of a mechanical braking system and explain its various parts and working of this braking system. [10M]
- OR**
9. Explain about steering geometry in detail. [10M]
10. Discuss in detail the Hydrogen as a fuel for IC Engines. [10M]
- OR**
11. Explain about different pollution control techniques. [10M]
