

Code No.: ME732PE

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–I–Semester End Examinations (Supply) – April - 2025
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 four basic components of the automobile structure? [2M]
- b) What is the primary function of the lubrication? [2M]
- c) What are the requirements of a good ignition system? [2M]
- d) What is the function of a spark plug? [2M]
- e) Explain the principle of clutches. [2M]
- f) What are the objectives of suspension system? [2M]
- g) Define Steering Mechanism. [2M]
- h) What is the Vacuum Braking system? [2M]
- i) What are the types of pollutants? [2M]
- j) What are the effects of emissions on human health. [2M]

PART-B

(50 Marks)

2. List out the types of automobile engines. What are the essential parameters of diesel injection systems? [10M]

OR

- 3.a. Explain the testing of fuel pumps. [5M]
- b. Explain the fuel supply system of petrol engine. [5M]
4. Distinguish between battery-ignition system and magneto-ignition system. [10M]

OR

5. What are the types of liquid cooling system? Explain any one of them. [10M]
6. Explain hydraulic brake system with neat sketch. [10M]

OR

7. Classify the gear boxes? Explain about the synchromesh gear. [10M]
- 8.a. Describe about the mechanical brake system. [5M]
- b. Sketch the arrangement of pneumatic braking system used in automobiles and explain. [5M]

OR

9. What are the differences between Ackerman steering mechanism and Davis steering mechanism? [10M]
10. What are the pollution standards in national and International level? [10M]

OR

11. Explain the various properties of alternate fuels. [10M]
