

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL - 2025**

AUTOMOBILE ENGINEERING

[Maximum Marks: **100**]

[Time: **3 Hours**]

PART-A

[Maximum Marks: **10**]

I. (Answer **all** questions in one or two sentences. Each question carries **2** marks)

1. State the function of thermostat.
2. List any two properties of lubricant.
3. List any two rear axle in automobiles.
4. Define inflation pressure of a tubed tyre.
5. List down two safety features in automobile.

(5 x 2 = 10)

PART-B

[Maximum Marks: **30**]

II. (Answer **any five** of the following questions. Each question carries **6** marks)

1. Explain the working of a simple carburettor.
2. What are the advantages and disadvantages of air cooling?
3. Draw the layout of transmission system for automobile.
4. Explain bleeding of brakes with the help of a neat sketch
5. Distinguish between tubeless tyre and tubed tyre.
6. Describe the working of a turbocharger with a neat figure.
7. Explain ABS in automobile.

(5 x 6 = 30)

PART-C

[Maximum Marks: **60**]

(Answer **one** full question from each Unit. Each full question carries **15** marks)

UNIT – I

- III. a. Draw the layout of fuel feed system in diesel engine and explain its working. (8)
- b. With a neat sketch explain the working of forced water cooling system. (7)

OR

- IV. a. Explain about the working of forced lubrication system. (8)
- b. Explain the working of magneto ignition system. (7)

UNIT – II

- V. a. Describe the working of constant mesh gear box with a neat sketch. (8)
b. Explain the working of centrifugal clutch. (7)

OR

- VI. a. Explain the working of differential system in automobile. (8)
b. With a neat sketch explain working of fluid coupling. (7)

UNIT- III

- VII. a. Illustrate the working of a pneumatic brake system. (8)
b. Explain i) Toe -in and toe-out ii) camber. (7)

OR

- VIII. a. With a neat sketch explain the working of a worm and sector steering system. (8)
b. Describe about the construction features of leaf spring. (7)

UNIT - IV

- IX. a. Illustrate the working of air suspension. (8)
b. Explain the emissions from automobiles. (7)

OR

- X. a. Explain the working of CRDI. (8)
b. Describe about power steering. (7)
