

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL- 2023**

AUTOMOBILE ENGINEERING

[Maximum marks: 100]

(Time: 3 Hours)

PART – A

Maximum marks : 10

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

1. Define the term carburetion.
2. State the function of radiator in an automobile.
3. List any two functions of a gear box.
4. State the use of spring shackle.
5. Name four emissions from automobile.

(5 x 2 = 10)

PART – B

Maximum marks : 30

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

1. With the help of sketch explain the working of AC mechanical pump.
2. Explain with simple sketch the working of a simple carburettor.
3. Explain the working of centrifugal clutch.
4. Write any six requirements of a clutch.
5. Explain briefly the leaf spring suspension.
6. Explain the working of disc type brake.
7. Describe the working of electronic ignition system.

(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 a neat layout and explain the fuel supply system of a petrol engine.

(8)

(b) Compare water cooling and air cooling. (7)

OR

IV.(a) Explain with sketch the working of magneto ignition system. (8)

(b) Explain governing systems. (7)

UNIT-II

V.(a) Sketch and explain full floating rear axle. (8)

(b) Draw the transmission system of an automobile and state the functions of each part. (7)

OR

VI. (a) Sketch and explain the working of a differential. (8)

(b) Explain the working of a sliding mesh gear box with suitable sketch. (7)

UNIT-III

VII. (a) Explain the working of drum brake in an automobile system. (8)

(b) Describe with sketch the working of rack and pinion steering gear. (7)

OR

VIII.(a) Explain bleeding of brakes. (8)

(b) With a neat sketch explain the steering system of an automobile. (7)

UNIT-IV

IX. (a) Explain the working of multi point fuel injection system. (8)

(b) Describe air suspension system. (7)

OR

X. (a) Describe functioning of turbocharger with line diagram. (8)

(b) Illustrate parking aid with ultrasonic sensors. (7)
