

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL - 2024**

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. State the function of carburetor.
2. What is differential?
3. What is the use of king pin?
4. What is spoked wheel?
5. What is turbo charger?

(5 x 2 = 10)

PART – B

Maximum marks: 30

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

1. With neat sketch explain about magneto ignition system.
2. Explain about single plate clutch.
3. What is epicyclic gear box?
4. What are the functions of suspension system?
5. Draw the sectional view of tubeless tyre and mark all parts.
6. Describe about air suspension system.
7. Explain the sources of excessive exhaust emissions.

(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) Explain about pressure lubrication system. (8)
- (b) Explain about the fuel system of petrol engine. (7)

OR

- IV.** (a) With neat sketch explain about battery ignition system. (8)
(b) Explain the working of bellows type thermostat. (7)

UNIT - II

- V.** (a) With the help of neat sketch explain about constant mesh gear box. (8)
(b) Explain about overdrive. (7)

OR

- VI.** (a) Describe the working of epicyclic gear box. (8)
(b) With neat sketch explain about full floating axle. (7)

UNIT - III

- VII.** (a) Explain the working of recirculating ball steering gear. (8)
(b) Explain about hydraulic brake system. (7)

OR

- VIII.** (a) Describe about telescopic shock absorber. (8)
(b) Explain the terms camber, caster, toe in and toe out. (7)

UNIT - IV

- IX.** (a) Explain the working of electronic ignition system. (8)
(b) Explain the working of MPFI. (7)

OR

- X.** (a) Explain about turbocharger. (8)
(b) Explain the working of ESC. (7)
