

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER - 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. Name any two lubrication systems in automobile.
  2. List down any two functions of universal joint.
  3. Name any two steering geometry.
  4. List down any two types of brake system in automobile.
  5. Name different exhaust emissions. (5 x 2 = 10)

**PART-B**

[Maximum Marks: **30**]

- II. (Answer **any five** of the following questions. Each question carries **6** marks)
1. Explain thermosyphon water cooling system.
  2. Classify governing systems in automobiles.
  3. Illustrate the working of over drive with a neat sketch.
  4. Explain the working of differential with a neat sketch.
  5. Explain the construction details of a leaf spring with a neat sketch.
  6. Explain the working of intercooler with a neat sketch.
  7. Explain about emissions in automobiles. (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 petrol engine and explain its working. (8)
- b. With a neat sketch explain the working of simple carburettor. (7)

**OR**

- IV. a. Explain about the working of battery coil ignition system. (8)  
b. Compare water cooling and air cooling. (7)

**UNIT – II**

- V. a. Describe the working of single plate clutch with a neat sketch. (8)  
b. List down the functions of gear box. (7)

**OR**

- VI. a. Describe the working of sliding mesh gear box with a neat sketch. (8)  
b. Describe about semi floating rear axle in automobile. (7)

**UNIT- III**

- VII. a. Explain the working of a rack and pinion steering system. (8)  
b. Compare tubed and tubeless tyre. (7)

**OR**

- VIII. a. Illustrate the working of hydraulic brake system with a neat sketch. (8)  
b. List down the functions of suspension system. (7)

**UNIT - IV**

- IX. a. Explain the working of MPFI. (8)  
b. Describe about i) Air bags ii) Self inflating tyres. (7)

**OR**

- X. a. Explain the working of electronic ignition system. (8)  
b. Explain the working of a turbocharger. (7)

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