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A22-00307

Reg.No.....
Signature.....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL-2022

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 air-fuel ratio.
2. List elements of transmission system.
3. Define castor.
4. State the use of air bag in automobile engineering.
5. State the functions of fuel filter. (5 x 2 = 10)

PART – B
Maximum marks : 30

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

1. Write notes on governing of IC engine.
2. List the functions of lubricants.
3. What are advantages of torque converter?
4. Draw the transmission system of an automobile and state the functions of each part.
5. What are the advantages of air brake system.
6. Explain the working of disc brake system.
7. Explain the central locking 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) Explain the working of magneto ignition system. (8)

(b) Explain the fuel system of diesel engine. (7)

OR

IV.(a) Explain the working principle of simple carburetor. (8)

(b) Explain the working principle of fuel feed pump. (7)

UNIT-II

V. (a) Explain the working of multi plate clutch. (8)

(b) Explain the working of fluid coupling. (7)

OR

VI. (a) Explain the working of constant mesh gear box. (8)

(b) Briefly describe about semi floating rear axle. (7)

UNIT-III

VII. (a) Sketch a recirculating ball type steeling gear box and explain its working. (8)

(b) Distinguish cross ply and radial ply tyres. (7)

OR

VIII.(a) With suitable sketch explain the functioning of disc brake. (8)

(b) State seven objectives of suspension system. (7)

UNIT-IV

IX. (a) Explain electronic fuel injection system and draw neat sketch. (8)

(b) List any seven pollution control techniques for SI engine. (7)

OR

X. (a) Illustrate the working of MPFI. (8)

(b) Discuss various emissions from automobile engine. (7)

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