

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

**AUTOMOBILE ENGINEERING**

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. Write any two functions of a carburettor.
2. What are the different functions of gear box ?
3. What are the components of a suspension system ?
4. What is centre point steering ?
5. Write four regions of a tyre cross section.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain the forced circulation cooling system.
2. Explain different engine governing systems.
3. Briefly describe about over drive.
4. Draw the transmission system of an automobile and state the functions of each part.
5. What is leading and trailing brake shoes ?
6. Explain the working of disc brake system.
7. Explain the central locking system.

(5×6 = 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 petrol engine. 7

OR

- IV (a) Explain the working principle of simple carburettor. 8  
 (b) Explain the working principle of fuel feed pump. 7

## UNIT — II

- V (a) Explain the working of single plate clutch. 8  
 (b) Explain the working of fluid flywheel. 7

OR

- VI (a) Explain the working of sliding mesh gear box. 8  
 (b) Briefly describe about full floating rear axle. 7

## UNIT — III

- VII (a) What are the functions of steering system ? 8  
 (b) Explain the working of pneumatic brake system. 7

OR

- VIII (a) Explain camber, caster and kingpin inclination. 8  
 (b) Explain the working of mechanical brake system. 7

## UNIT — IV

- IX (a) Briefly describe about multi-point fuel injection system. 8  
 (b) Explain cross ply tyre and radial ply tyre. 7

OR

- X (a) Write different methods of reducing automobile emissions. 8  
 (b) Briefly describe about Anti-lock braking system. 7