

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

ADVANCED 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. List the advantages of MPFI.
2. Write any four pollutants from automobile engines.
3. List any two refrigerants used in automobiles.
4. Name the main components of ABS.
5. What is a three point safety belt ?

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. List any six methods of improving fuel economy.
2. Name the various sensors used in electronic fuel injection system.
3. Discuss about Bharat emission control standards.
4. List any six methods to control NOx.
5. Write the advantages of automatic climate control.
6. Explain the working of electric mirror in automobile.
7. Discuss keyless entry 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) Differentiate between port injection and throttle body injection. 8
 (b) Briefly describe the D-MPFI system with a neat sketch. 7

OR

- IV (a) Explain about gasoline direct injection system. 8
 (b) What are the advantages of CRDI ? 7

UNIT — II

- V (a) With a layout explain vapour recovery system. 8
 (b) What are the ways to control the effects of diesel smoke ? 7

OR

- VI (a) Discuss the working of 2 way catalytic converter. 8
 (b) Explain the PCV systems used in automobiles. 7

UNIT — III

- VII (a) Explain the cruise control used in automobiles. 8
 (b) Discuss the working of electric seat. 7

OR

- VIII (a) Write short notes on various components used in automobile air conditioning system. 8
 (b) List the various control devices of automobile air conditioning system. 7

UNIT — IV

- IX (a) Discuss about the working of electronic stability control. 8
 (b) List the advantages of ABS. 7

OR

- X (a) Explain Automatic Traction Control System. 8
 (b) Discuss the functioning of GPS in automobiles 7