

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2020**

ADVANCED AUTOMOBILE ENGINEERING

[Maximum Marks: 75]

[Time: 2.15 Hours]

PART-A

(Answer *any three* questions in one or two sentences. Each question carries 2 marks)

- I.
1. List the components of engine management system in throttle body injection.
 2. State the advantages of PCV system.
 3. State the use of expansion valve in automobile air conditioning system.
 4. List the advantages of cruise control system.
 5. State the advantage of keyless entry in automobiles. (3 x 2 = 6)

PART-B

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

- II
1. List the advantages of MPFI system.
 2. State the draw backs of catalytic converter.
 3. List and explain ABS components.
 4. Explain electronic stability control system.
 5. State the disadvantages of gasoline direct injection system.
 6. Explain different methods adopted to control emission in petrol engines.
 7. Describe about automatic climate control. (4 x 6 = 24)

PART-C

(Answer *any of the three units* from the following. Each full question carries 15 marks)

UNIT – I

- III (a) Explain fuel delivery system in MPFI. (8)
(b) Describe common rail direct injection. (7)

OR

- IV (a) List and explain different sensors used in MPFI. (8)
(b) Differentiate between L-MPFI and D-MPFI. (7)

UNIT – II

- V (a) Explain evaporative emission control system in automobiles. (8)
(b) Describe about control of diesel engine smoke. (7)

OR

- VI (a) Explain about air pollution caused due to automobile engines. (8)
(b) Describe exhaust gas recirculation. (7)

UNIT- III

- VII (a) Describe intelligent wind screen wiper. (8)
(b) Explain working of automotive air conditioning system. (7)

OR

- VIII (a) Describe the working of electric seat and mirror. (8)
(b) Describe about cruise control in automobiles. (7)

UNIT - IV

- IX (a) Explain adaptive noise control system. (8)
(b) Describe about parking distance control. (7)

OR

- X (a) State the use and operation of air bag in automobiles. (8)
(b) Explain GPS. (7)
