

TED (10)-3005  
(REVISION—2010)

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

SECOND SEMESTER DIPLOMA EXAMINATION IN AUTOMOBILE  
ENGINEERING—MARCH, 2011

AUTOMOBILE POWER PLANT

[Time : 3 hours

(Maximum marks : 100)

PART—A

(Answer the following questions in one or two sentences. Each question carries 2 marks.)

Marks

- I
1. Write the function of a connecting rod.
  2. Write any three types of valve used in I.C. engine.
  3. State the function of choke system in a carburettor.
  4. Write the function of a governor in diesel engine.
  5. Define pour point.
- (5×2=10)

PART—B

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

- II
1. With a neat sketch explain single row overhead valve mechanism.
  2. Illustrate wetliner with neat sketch.
  3. Explain oil bath type air cleaner used in petrol engines.
  4. With line diagram explain individual pump fuel injection system.
  5. Describe any one direct injection type open combustion chamber with a neat sketch.
  6. Explain thermosyphon system in water cooling.
  7. Describe splash system in engine lubrication.
- (5×6=30)

PART—C

(Answer any *one* full question from each unit. Each question carries 15 marks.)

UNIT—I

- III
1. Explain I.C. engine piston with the help of a sketch. 8
  2. Explain double row side valve mechanism. 7

OR

- IV
1. With a neat sketch explain disc type rotary valve. 7
  2. Sketch and explain sodium vapour cooled valve. 8

## UNIT--II

- |   |                                                               |   |
|---|---------------------------------------------------------------|---|
| V | 1. Sketch and explain S.U. electrical pump.                   | 7 |
|   | 2. Explain idling circuit of a carburettor with line diagram. | 8 |

OR

- |    |                                                         |   |
|----|---------------------------------------------------------|---|
| VI | 1. Describe acceleration pump circuit in a carburettor. | 8 |
|    | 2. Explain compensating jet.                            | 7 |

## UNIT--III

- |     |                                                                    |   |
|-----|--------------------------------------------------------------------|---|
| VII | 1. Sketch and explain pneumatic governor.                          | 8 |
|     | 2. Describe distributor type fuel injection pump with neat sketch. | 7 |

OR

- |      |                                                                        |    |
|------|------------------------------------------------------------------------|----|
| VIII | 1. List the various components of fuel supply system in diesel engine. | 4  |
|      | 2. Explain single cylinder jerk pump with neat sketch.                 | 11 |

## UNIT--IV

- |    |                                                                                              |   |
|----|----------------------------------------------------------------------------------------------|---|
| IX | 1. Explain dry sump lubrication system with neat sketch.                                     | 8 |
|    | 2. Draw a line diagram of a pressure cap of a radiator and explain the need of pressure cap. | 7 |

OR

- |   |                                                          |   |
|---|----------------------------------------------------------|---|
| X | 1. Sketch and explain bellows type thermostat.           | 8 |
|   | 2. Explain the working of oil cooler with a neat sketch. | 7 |

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