

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

AUTOMOBILE POWER PLANT

[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). Define clearance volume of an engine.
(2). What is a stoichiometric air-fuel mixture?
(3). State the functions of fuel injector in diesel engines.
(4). Name two types of lubrication systems.
(5). List any two functions of thermostat valve. (3 x 2 = 6)

PART – B

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

- II. (1). State six differences between two stroke and four stroke engines.
(2). Explain the types of petrol fuel systems.
(3). Explain the working of AC mechanical fuel pump.
(4). With a neat sketch explain the working of centrifugal governor used in FIP.
(5). Prepare a block diagram of CRDI and name the parts.
(6). List any six components in lubricating system.
(7). Discuss cooling fan. (4 x 6 = 24)

PART – C

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

UNIT – I

- III. (a). Explain engine terminology with a neat sketch. (8)
(b). With a neat sketch describe the working of overhead valve operating mechanism with side camshaft. (7)

OR

- IV. (a). Describe the working of 2 stroke petrol engine with a neat sketch. (8)
(b). Write 7 classifications of engines. (7)

UNIT-II

- V.(a). Explain the working of electronic fuel injection system with a neat sketch. (8)
(b). Explain baffle type of muffler with sketch. (7)

OR

- VI. (a). Explain the working of SU electrical pump with neat sketch. (8)
(b). Describe oil bath type air cleaner. (7)

UNIT-III

- VII. (a). With a neat sketch explain the working of diesel fuel injector. (8)
(b). Explain about diesel fuel filters. (7).

OR

- VIII.(a). Describe distributor type fuel injection system with neat sketch. (8)
(b). Explain the working of plunger type fuel feed pump. (7)

UNIT-IV

- IX, (a). Discuss the working of dry sump lubrication system used in automobiles. (8)
(b). Write notes on oil cooler and pressure relief valve with sketches. (7)

OR

- X. (a). Explain the working of thermosyphon cooling system. (8)
(b). Explain with neat sketch system of radiator cores. (7)