23101

11819

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Figures to the right indicate full marks.

(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Answer any FIVE of the following: **20**

a) Define flash point and flammability range.

b) Explain Hazardous area classification of dust.

c) Define fire. Explain in detail about classification of fires.

d) Explain Detonation and Deflagration.

e) Define water hammer and Jet reaction.

f) Explain auto-ignition temperature with example.

g) Explain in detail physical and chemical properties of metals.

2. Answer any TWO of the following: **16**

a) Explain the detail the hazards and preventive measures in handling and storage of L.P.G.

b) Explain concept of class and divisions. With brief note on relation between divisions and zones.

c) Explain protection level categories and types of protection.

Marks

3. Answer any TWO of the following: **16**

a) Explain in detail, principle of fire extinguishing methods.

b) Define types of foam extinguishers. Explain extinguishing property of foam.

c) Define types of DCP extinguishers. Explain their extinguishing properties and uses.

4. Answer any TWO of the following: **16**

a) Explain fire load concept and classification.

b) Explain transmission of heat by conduction, convection and radiation with one example each.

c) Explain the types of flames. Give brief note on stationary and propagating flames.

5. Answer any TWO of the following: **16**

a) Define:

(i) Velocity and flow

(ii) Friction loss

(iii) Velocity

(iv) Pressure

b) Define terms:

(i) Hydraulics

(ii) Back pressure

(iii) Water power

(iv) Break horse power

c) Explain physical and chemical properties of combustible solids.

6. Answer any TWO of the following: **16**

a) List out the electrical tools. Explain hazards associated with electrical tools.

b) Explain ELCB and RLCB with their advantages.

c) Explain electrical hazards and causes of electrical fires.
