

11039

16117

3 Hours / 100 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following:** **20**
- Explain various components of a smoke detection system.
 - State the advantages and disadvantages of various primers.
 - Draw a sketch stand post type hydrant and name the parts.
 - Explain 'Down Comer'.
 - Explain the working principle of pumps.
 - Explain general tests for heat detectors.
 - Name the types of positive displacement pumps.
Explain any one.
- 2. Attempt any TWO of the following:** **16**
- What are the sources of water supply. Explain water supply from designing point of view.
 - Explain various components of fire hydrant system.
 - Explain centrifugal pump with neat diagram. Give characteristics of centrifugal pump.

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- 3. Attempt any TWO of the following: 16**
- a) Name the types of detectors. Draw a sketch of optical detector and explain it's working.
 - b) State the importance of alarm system. Explain deluge system in details.
 - c) What is work of primer. Explain water ring primer with neat diagram.
- 4. Attempt any TWO of the following: 16**
- a) Explain IS 909-1992 in details.
 - b) What is the meaning of DPITC. Explain DPITC of hydrant system in details.
 - c) What do you know about sprinkler head ? Prepare a table of temperature rating and colour of bulb of sprinkler head. List the component of sprinkler system.
- 5. Attempt any TWO of the following: 16**
- a) What are the types of risers. Explain any one with neat diagram.
 - b) Explain IS 9668-1990 provision and maintenance of water supply for fire fighting.
 - c) Design a hydrant system for textile mill. Explain stand post type hydrant.
- 6. Attempt any TWO of the following: 16**
- a) Explain ultra violet radiation detector with it's working principle. Draw a neat diagram.
 - b) List the first aid fire fighting appliances. Explain hose-reel hose with sketch.
 - c) Write about water storage tank, pump house, valves, spacing of hydrants of hydrant system for different hazard industries.
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