Total No. of Questions: 6 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Engineering

End Sem (Odd) Examination Dec-2019

FT3CO14 Fire Engineering I

Programme: B.Tech. Branch/Specialisation: FT

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i. What type of fire extinguisher would you use on a fire that is categorised as a Class F Fire? **1**
(a) Carbon Dioxide Fire Extinguishers
(b) Water Fire Extinguisher
(c) Wet Chemical Fire Extinguisher
(d) Dry Powder Fire Extinguisher

ii. Diameter of hose coupling **1**
(a) 65mm (b) 63mm (c) 85mm (d) 50mm

iii. Wood, paper, & plastic comes under which class **1**
(a) Class B (b) Class C (c) Class A (d) Class D

iv. Which type of detector detect UV flame **1**
(a) Smoke detector (b) Flame detector
(c) CO detector (d) Heat detector

v. FFFP stands for **1**
(a) Film forming fluoroprotein foam
(b) Film formation foam protein
(c) Foam firming protein foam
(d) None of these

vi. IS for triple purpose nozzle **1**
(a) IS 2872 (b) IS 2870 (c) IS 2871 (d) IS 2888

vii. TAC stands for **1**
(a) Tariff advisory committee
(b) Tray advisory committee
(c) Trend adverb committee
(d) All of these

P.T.O.

viii. MCP stands for **1**
(a) Mean call point (b) Manual cal point
(c) Mean call point (d) Make call point

ix. Decibel (db) is a unit used to measure **1**
(a) Light (b) Sound (c) Frequency (d) None of these

x. Standard length of Hose pipe **1**
(a) 15mtr (b) 10mtr (c) 12mtr (d) 13mtr

Q.2 i. What is Fire Triangle? **2**

ii. What is the classification of fire? **3**

iii. Explain heat transfer method with proper diagram in relationship with fire? **5**

OR iv. Explain dust explosion and its various prevention method? **5**

Q.3 i. What is flammability? **2**

ii. Explain Electrical fires, causes, protective system & its prevention of failure? **8**

OR iii. Explain different kinds of fire hazards? **8**

Q.4 i. Define fire door & fire walls? **3**

ii. Describe handling and storing flammable and combustible liquids? **7**

OR iii. What is grounding & bonding method & also explain various types of flames? **7**

Q.5 i. What is the phase of fire? **4**

ii. Explain various detectors with fire alarm system? **6**

OR iii. Explain Flame detection methods and their types? **6**

Q.6 Attempt any two:

i. Explain different types of extinguishers? **5**

ii. Explain sprinkler system with diagram? **5**

iii. Explain fire suppression system? **5**

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Marking Scheme
FT3CO14 Fire Engineering I

Q.1	i.	What type of fire extinguisher would you use on a fire that is categorised as a Class F Fire? (c) Wet Chemical Fire Extinguisher		**1**
	ii.	Diameter of hose coupling (b) 63mm		**1**
	iii.	Wood, paper, & plastic comes under which class (c) Class A		**1**
	iv.	Which type of detector detect UV flame (b) Flame detector		**1**
	v.	FFFP stands for (a) Film forming fluoroprotein foam		**1**
	vi.	IS for triple purpose nozzle (c) IS 2871		**1**
	vii.	TAC stands for (a) Tariff advisory committee		**1**
	viii.	MCP stands for (b) Manual cal point		**1**
	ix.	Decibel (db) is a unit used to measure (b) Sound		**1**
	x.	Standard length of Hose pipe (a) 15mtr		**1**
Q.2	i.	Definition of Fire Triangle		**2**
	ii.	Classification of fire		**3**
	iii.	Method of heat transfer Diagram	4 marks 1 mark	**5**
OR	iv.	Dust explosion with prevention method Stepwise marking		**5**
Q.3	i.	Definition of flammability		**2**
	ii.	Causes Electrical fires Protective system & its prevention of failure	4 marks 4 marks	**8**
OR	iii.	Any four fire hazards 2 marks for each	(2 marks * 4)	**8**
Q.4	i.	Definition of fire door Definition of fire walls	2 marks 1 mark	**3**
	ii.	Handling of chemicals Storing of chemicals Diagram	3 marks 3 marks 1 mark	**7**
OR	iii.	Definition of grounding & bonding Types of flames	3 marks 4 marks	**7**
Q.5	i.	Phases of fire		**4**
	ii.	Working of detectors Working of alarm system	4 marks 2 marks	**6**
OR	iii.	Working of Flame detector Types of Flame detectors	2 marks 4 marks	**6**
Q.6		Attempt any two:		
	i.	Types of extinguishers		**5**
	ii.	Working of sprinkler system Diagram	4 marks 1 mark	**5**
	iii.	Working principle of fire suppression system Stepwise marking		**5**

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