

Total No. of Questions: 6

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Enrollment No.....



Faculty of Engineering
End Sem (Even) Examination May-2019
FT3EL02 Fire Safety Codes and Standardization
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. As per IS 944 the Casing material for Trailer Pump is: **1**
(a) Stainless Steel (b) Mild steel
(c) Gun Metal (d) Aluminium Alloy
- ii. Single headed landing valve installs with **1**
(a) Welded Joint (b) Threaded Joint
(c) Clamped Joint (d) Flanged Joint
- iii. "Water Chute" is necessary in: **1**
(a) Salvage operation (b) Rescue Operation
(c) Fire Fighting (d) First Aid
- iv. By which system the power of engine is transmitting to pump of tender **1**
(a) Power transmission system
(b) Power take off
(c) Pump gearing system
(d) Gear differential System
- v. As per NBC the occupancies are divided in to following numbers: **1**
(a) 11 (b) 7 (c) 9 (d) 13
- vi. Minimum area of basement required for installation of automatic sprinkler system is: **1**
(a) 200 Sqm (b) 300 Sqm (c) 350 Sqm (d) 400 Sqm
- vii. Minimum height of passageway and corridor between two temporary structure shell not be less than: **1**
(a) 6 Mtr (b) 5 Mtr (c) 4 Mtr (d) 3 Mtr

P.T.O.

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- viii. The minimum floor area allowed to occupy one person in the temporary structure or pandal is: **1**
 (a) 2 Sqm (b) 1.5 Sqm. (c) 1 Sqm (d) 0.5 Sqm
- ix. Facilities provided by one industry to another neighboring industry in any major accident are called: **1**
 (a) Mutual help (b) Contractual Aid
 (c) Tie up (d) Mutual Aid
- x. Which of the following code is related to the fire & life Safety **1**
 (a) NBC Part 4 (b) Building by law
 (c) Municipal bye law (d) NBC Part 7
- Q.2 i. Enlist the various types of vehicles used in firefighting and rescue operation? **2**
 ii. What are the technical details of fire trailer pump? **3**
 iii. Demonstrate the design and construction part of CFT as per IS? **5**
- OR iv. Discuss about the inspection, testing and maintenance of various types of fire extinguisher? **5**
- Q.3 i. Define salvage operation and discuss the problems occurs during the salvage operation? **2**
 ii. Discuss the design and construction of salvage tender? **8**
- OR iii. Describe the various tools and equipment's of rescue tender used in rescue operations? **8**
- Q.4 i. Classify the occupancies as per NBC 1983? **3**
 ii. What are the various fire prevention and protection measures in high rise residential building? **7**
- OR iii. Explain the various types of firefighting installations as per NBC part 4 fire and life safety? **7**
- Q.5 i. Discuss about the capacity and means of access of temporary structure and pandal as per IS 8758? **4**
 ii. Write the general requirements for the installation of temporary structure and pandal as per IS 8758? **6**

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- OR iii. Explain the fire protection measure and firefighting arrangements in temporary structure and pandal? **6**
- Q.6 Attempt any two:
- i. Write the various methodologies to prevent an urban fire? **5**
 ii. What are the responsibilities of municipal corporation to prevent the occurrence of fire in big cities? **5**
 iii. Explain various techniques to prevent the industrial fire? **5**

Marking Scheme

FT3EL02 Fire Safety Codes and Standardization

Q.1	i.	As per IS 944 the Casing material for Trailer Pump is:		1
		(c) Gun Metal		
	ii.	Single headed landing valve installs with		1
		(d) Flanged Joint		
	iii.	“Water Chute” is necessary in:		1
		(a) Salvage operation		
	iv.	By which system the power of engine is transmitting to pump of tender		1
		(b) Power take off		
	v.	As per NBC the occupancies are divided in to following numbers:		1
		(c) 9		
	vi.	Minimum area of basement required for installation of automatic sprinkler system is:		1
		(a) 200 Sqm		
	vii.	Minimum height of passageway and corridor between two temporary structure shell not be less than:		1
		(d) 3 Mtr		
	viii.	The minimum floor area allowed to occupy one person in the temporary structure or pandal is:		1
		(d) 0.5 Sqm		
	ix.	Facilities provided by one industry to another neighboring industry in any major accident are called:		1
		(d) Mutual Aid		
	x.	Which of the following code is related to the fire & life Safety		1
		(a) NBC Part 4		
Q.2	i.	Types of vehicles used in firefighting	1 mark	2
		Rescue operation	1 mark	
	ii.	Technical details of fire trailer pump		3
	iii.	Design part of CFT as per IS	2.5 marks	5
OR		Construction part of CFT as per IS	2.5 marks	
	iv.	Inspection, testing of various types of fire extinguisher		5
			2.5 marks	
		Maintenance of various types of fire extinguisher	2.5 marks	

Q.3	i.	Salvage operation	1 mark	2
		Problems occurs during the salvage operation	1 mark	
	ii.	Design of salvage tender	4 marks	8
		Construction of salvage tender	4 marks	
OR	iii.	Tools rescue tender used in rescue operations	4 marks	8
		Equipment’s of rescue tender used in rescue operations	4 marks	
Q.4	i.	Occupancies as per NBC 1983		3
	ii.	Fire prevention measures in high rise residential building		7
			3 marks	
		Protection measures in high rise residential building	4 marks	
OR	iii.	Types of occupancies	3 marks	7
		Firefighting installations	4 marks	
Q.5	i.	Capacity of temporary structure and pandal as per IS 8758		4
			2 marks	
		Means of access of temporary structure and pandal as per IS 8758		
			2 marks	
	ii.	Installation of temporary structure	3 marks	6
		Installation of pandal as per IS 8758	3 marks	
	OR	iii.	Fire protection measure	6
			3 marks	
Q.6		Firefighting arrangements	3 marks	
		Attempt any two:		
	i.	Methodologies to prevent an urban fire		5
	ii.	Responsibilities of municipal corporation to prevent the occurrence of fire in big cities		5
	iii.	Techniques to prevent the industrial fire		5
