

**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)**

M.Tech. (First Semester - Regular) Examinations, January – 2026

24MISPC11001 – Fire Engineering



Time: 3 hrs

Maximum: 60 Marks

**Answer ALL questions
(The figures in the right hand margin indicate marks)**

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer *ALL* questions

	CO #	Blooms Level
a. Define fire and list the essential elements of combustion.	CO1	K1
b. What is meant by standpipe system?	CO3	K2
c. What is passive fire protection?	CO4	K1
d. What is a fire safety audit?	CO5	K1
e. Mention any two fire safety regulations.	CO6	K1

PART – B

(10 x 5 = 50 Marks)

Answer *ALL* the questions

	Marks	CO #	Blooms Level
2. a. Explain the classification of fires and suitability of extinguishing agents for each class.	10	CO1	K3
(OR)			
b. Write a short note on fire load and fire severity.	5	CO1	K2
c. Explain ignition temperature and calorific value.	5	CO1	K1
3.a. Compare smoke detectors and heat detectors.	5	CO2	K2
b. Explain the function of control and indicating panel.	5	CO2	K2
(OR)			
c. Discuss system integration of fire detection with other building systems.	10	CO2	K3
4.a. Describe gaseous and foam fire suppression systems with applications.	10	CO3	K3
(OR)			
b. Compare foam and gaseous suppression systems.	5	CO3	K2
c. Write a short note on fire water pumps.	5	CO3	K2
5.a. Discuss fire-resistant materials and their applications in buildings.	10	CO4	K3
(OR)			
b. Explain the importance of building codes in fire safety.	5	CO4	K2
c. State the objectives of fire safety training.	5	CO5	K2
6.a. Write a short note on assembly points.	5	CO5	K2
b. Discuss best practices in fire safety management.	5	CO6	K3
(OR)			
c. Explain the legal and regulatory framework governing fire safety.	10	CO6	K3

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