



CBCS SCHEME

BCV306D

Third Semester B.E/B.Tech. Degree Examination, June/July 2026

Fire Safety in Building

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level, C: Course outcomes.

Module – 1			M	L	C
1	a.	Outline the basic concepts of fire protection.	8	L2	CO1
	b.	With a neat sketch explain the flashover condition.	6	L2	CO1
	c.	Discuss the effect of fire on steel and concrete.	6	L2	CO1
OR					
2	a.	Explain the methods of Firefighting.	6	L2	CO1
	b.	Explain on fire resistance.	6	L2	CO1
	c.	Differentiate between ventilation controlled fire and fuel controlled fire.	8	L2	CO1
Module – 2					
3	a.	Explain the requirements for an urban planning with respect to fire safety.	6	L2	CO2
	b.	List the fire detection and suppression system.	8	L1	CO2
	c.	Outline the essential safety requirements of an Escalator.	6	L2	CO2
OR					
4	a.	Explain Lift Zoning.	6	L2	CO2
	b.	List the requirement for the design of escape route and refuge area.	6	L1	CO2
	c.	Elaborate on round trip timer and list out the assumptions.	8	L3	CO2
Module – 3					
5	a.	Explain the different types of water supply systems.	6	L2	CO3
	b.	List different types of control systems used in water supply network. Also mention its application.	6	L1	CO3
	c.	Explain the different types of waste water supply systems.	8	L2	CO3
1 of 2					

OR

6	a.	List out the factors to be considered in the design of waste water process.	6	L2	CO3
	b.	List different types of fixture units used in pipe network and mention its applications.	6	L1	CO3
	c.	With a neat sketch explain any types of work supply distribution system and list their advantages and disadvantages.	8	L2	CO3

Module – 4

7	a.	Outline the concept of HVAC.	6	L2	CO4
	b.	Discuss the life cycle cost of a building.	6	L2	CO4
	c.	With a check list explain how building inspection will be carried out.	8	L2	CO4

OR

8	a.	Explain with neat figure psychometric chart.	6	L2	CO4
	b.	Outline the planning for building maintenance.	6	L2	CO4
	c.	Discuss in detail on electrical system priority used in a building.	8	L2	CO4

Module – 5

9	a.	Explain the condition survey for a building.	6	L2	CO5
	b.	Discuss the basis for sampling and choice of test location.	6	L2	CO5
	c.	Elaborate on repair, rehabilitation and retrofitting.	8	L2	CO5

OR

10	a.	Explain the health evaluation of buildings.	6	L2	CO5
	b.	Discuss on Non-destructive testing.	6	L2	CO5
	c.	Elaborate on interpretation of test results.	8	L2	CO5
