

# **AMSF-24 LIFE SAFETY IN BUILDING FIRE**

## **UNIT-1 PROCESS OF EMERGENCY EVACUATION**

- 1.1 Special features of personnel movement.
- 1.2 Parameter characteristics of the movement of people; Stages of evacuation;
- 1.3 Planning and design of evacuation routes and exits;
- 1.4 Planning of seating arrangements in large assembly buildings.

## **UNIT-2 CLASSIFICATION OF BUILDINGS**

- 2.1 Based on occupancy and type of construction according to fire resistance as per NBC;
- 2.2 Fire zone; General fire safety requirements applicable to all individual occupancies.
- 2.3 General exit requirements as per NBC;
- 2.4 Internal staircases; horizontal exits;
- 2.5 Fire tower; ramps; fire lifts;
- 2.6 External fire escape ladders;
- 2.7 Planning of location and calculation of capacity,
- 2.8 Number and width of exit as per NBC for different occupancy classification.

## **UNIT-3 FIRE AND LIFE SAFETY REQUIREMENTS**

- 3.1 Fire and life safety requirements in different groups of buildings-
- 3.2 Hotel, Schools & Colleges, Hospitals, Theatres, Shopping malls, etc.;
- 3.3 Fire protection and prevention in high rise buildings;
- 3.4 Fire protection in underground structures and in buildings under construction.
- 3.5 Sitting of detectors as per relevant Indian standard specifications;
- 3.6 Selection and planning of alarm system as per relevant standards (BIS).
- 3.7 General requirements and guidelines for the installation of fire detection and alarm system in buildings of different occupancy classification.

## **UNIT-4 SELECTION AND DISTRIBUTION OF PORTABLE EXTINGUISHERS**

- 4.1 Selection and distribution of portable extinguishers (for class A and B fires) and other fire protection equipment's and systems for different occupancy classification as per NBC;
- 4.2 Planning of fixed firefighting installation for different occupancy classification-
- 4.3 Sprinkler system; total flooding system;
- 4.4 CO<sub>2</sub> system; foam system;
- 4.5 Fire Investigation; Detection of arson;
- 4.6 Fire training and education- fire drill, fire order;
- 4.7 Fire safety audits; Fire risk assessment.

### **References Books:**

1. Roytman M. Ya., "Principles of Fire Safety Standards for Building Construction", Amerind Publishing Co. Pvt. Ltd., New Delhi, 1975.
2. Barendra Mohan Sen, "Fire protection and prevention the essential hand book"
3. BIS, "NBC Part4-Fire and Life safety", Bureau of Indian Standards, New Delhi, 2005.