



5. The \_\_\_\_\_ is a legal term that implies a deliberate intent to cause damage or injury due to fire: CO1-U  
 (a) Arson (b) Fire-play (c) Fire-setting (d) All of the above
6. In well-ventilated flaming fires, nearly all the carbon lost from the combustibles is converted to \_\_\_\_\_: CO1-U  
 (a) Carbon Monoxide (b) Carbon Dioxide  
 (c) Hydrochloric Acid (d) All of the above
7. If the 'flash point' of flammable liquid is higher, then the substance would be: CO1-U  
 (a) More hazardous (b) Less hazardous (c) No hazard (d) All of the above
8. What is the main toxic gas, the fire fighter has to bear in mind while rescuing a trapped person from sewer: CO1-U  
 (a) Hydrogen chloride (b) Carbon monoxide  
 (c) Hydrogen sulphide (d) Methane
9. The \_\_\_\_\_ has the lowest rate of false alarms, but it also has the slowest response time; CO1-U  
 (a) Heat Detectors (b) Optical Smoke Detectors  
 (c) Rate of Rise Smoke Detectors (d) None of the Above
10. Most arson fires are started with; CO1-U  
 (a) Lead-based paints (b) Petroleum-based accelerants  
 (c) An oxidizing agent (d) Highly unsaturated oils

PART – B (5 x 2= 10Marks)

11. What are the key factors controlling fire severity in a compartment fire? CO1-U
12. What is the importance of monitoring temperature-time response in compartment fires? CO1-U
13. Compare the benefits of solid fire-resistant screens versus water curtains in fire protection. CO1-U
14. Apply the principles of fire severity to evaluate the effectiveness of fabricated fireproof boards. CO1-U
15. Analyze the key requirements for safe work platforms. CO1-U

PART – C (5 x 16= 80Marks)

16. (a) Classify the factors that control fire severity in compartment fires. CO1-App (16)
- Or
- (b) Construct a detailed explanation of how ventilation influences fire behavior in a compartment. CO1-App (16)
17. (a) Classify the various temperature-time responses seen in compartments during pre-flashover and post-flashover stages. CO2-Ana (16)
- Or
- (b) Construct a comprehensive explanation of the factors that affect temperature-time responses in compartment fires. CO2-Ana (16)
18. (a) Analyze the principles of fire separation between buildings and their significance in safety planning. CO3-Ana (16)
- Or
- (b) Assume a scenario where fire separation is not maintained. What potential risks could arise? CO3-Ana (16)
19. (a) Apply the properties of calcium silicate boards in fire protection design. CO4-Ana (16)
- Or
- (b) Build a framework for assessing the fire resistance of structural elements made from different materials. CO4-Ana (16)
20. (a) Analyze the requirements for safe work platforms and their impact on worker safety. CO5-Ana (16)
- Or
- (b) Assume a scenario where fall protection measures are inadequate. What potential hazards could arise? CO5-Ana (16)

