

**C-5726**

**Sub. Code**

**90711**

**P.G. DIPLOMA EXAMINATION, APRIL 2025**

**First Semester**

**Fire and Industrial Safety**

**FIRE SAFETY – DESIGN, INSTALLATION AND  
MAINTENANCE**

**(2023 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** questions.

1. Fire can be reduced by removing \_\_\_\_\_  
(a) Oxygen                      (b) Heat  
(c) Fuel                          (d) Any of above
2. Metals come under which class of fire?  
(a) A                                (b) B  
(c) C                                (d) D
3. Which fire extinguisher is suitable for live electrical fire?  
(a) Liquefied                      (b) Water filled  
(c) CO<sub>2</sub>                              (d) Halon
4. Which type of fire extinguisher is used for fire due to liquids?  
(a) B                                (b) A  
(c) D                                (d) C

5. What is the colour of a portable water-type fire extinguisher?
- (a) Emerald green      (b) Pale cream  
(c) French blue      (d) Signal red
6. Which special hazard fire protection system has been outdated since 1993-1994?
- (a) Clean Agent      (b) Halon 1301  
(c) Dry Mist      (d) Inert Gas
7. Under Fire prevention, which detectors save human life in commercial buildings?
- (a) Ultraviolet      (b) Smoke Detector  
(c) Infrared      (d) Heat
8. Which of the following apparatus' voltage is tested after every year?
- (a) Beater      (b) Hook  
(c) Axe      (d) Both (b) and (c)
9. The hose reel should be directly taken from the wet-riser pipe by means of a \_\_\_\_\_ mm Socket and pipe to which the hose reel is to be attached.
- (a) 38      (b) 37  
(c) 45      (d) 88
10. Universal Extinguisher is
- (a) Foam Type      (b) CO2 type  
(c) DCP      (d) Wire type

**Part B**

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the stages of fire and mention the rule of the fire triangle.

Or

- (b) Differentiate Light Hazard and High Hazard.

12. (a) Mention the types of Fire extinguishers and narrate the uses of fire extinguishers.

Or

- (b) Shortly discuss about Modular Fire Extinguisher.

13. (a) Briefly discuss the fire water storage tank.

Or

- (b) Write short notes about the sprinkler system and its importance.

14. (a) What is CO<sub>2</sub> suppression system? And list the need and importance of it.

Or

- (b) List the fire suppression systems and explain any one with relevant data.

15. (a) Explore the main components of a fire alarm system and list the application of an electrical fire alarm.

Or

- (b) Explain the step-by-step installation of MCP.

**Part C**

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) List the phases of firefighting and explain the methods of firefighting.

Or

- (b) Briefly discuss the need and importance of the National Building Code.

17. (a) Explain the fire extinguisher methods.

Or

- (b) Describe in detail about water bucket technique with the necessary data.

18. (a) Elaborately discuss the hydrant fitting methods.

Or

- (b) Distinguish wet foam and dry foam and explore installation methods of wet/dry foam.

19. (a) Briefly discuss about CO<sub>2</sub> Flooding system with the necessary information.

Or

- (b) How many fire brigades are there in India? And briefly discuss the need and significance of it.

20. (a) Elaborately discuss the need for and significance of emergency light installation.

Or

- (b) Explore the merits and demerits of Training and briefly discuss the Alarm panel maintenance.

**C-5727**

**Sub. Code**

**90712**

**P.G. DIPLOMA EXAMINATION, APRIL 2025**

**First Semester**

**Fire and Industrial Safety**

**INDUSTRIAL SAFETY MANAGEMENT**

**(2023 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** questions.

1. \_\_\_\_\_ involves examining the details and causes of an accident
  - (a) Investigation
  - (b) Overviewing
  - (c) Test
  - (d) Analysis
2. What document is required to perform certain tasks and ensure safety protocols are followed?
  - (a) Visa
  - (b) Passport
  - (c) Work permit
  - (d) approval
3. What is essential personal equipment used to protect workers from specific hazards?
  - (a) Gloves
  - (b) Goggles
  - (c) Mask
  - (d) All of them
4. What protective equipment is necessary to protect eyes during welding?
  - (a) Welding goggle
  - (b) Cotton shirt
  - (c) Helmet
  - (d) Shoe

5. What PPE is used to protect the ears from high noise levels?
- (a) Earbuds (b) Earphone  
(c) Headphone (d) None of them
6. \_\_\_\_\_ law defines the relationship between voltage, current, and resistance in an electrical circuit.
- (a) James watt's (b) Kirchhoff's  
(c) Lorentz (d) Ohm's
7. What type of injury is commonly associated with heat or chemical exposure?
- (a) Burns (b) Fracture  
(c) Cardiac issue (d) Alzheimer
8. What system categorizes chemicals based on their health and physical hazards?
- (a) ISI (b) ISO  
(c) BIS (d) WHMIS
9. Hazardous Wastes – Management and Handling-Rules
- (a) 1989 (b) 2000  
(c) 1967 (d) 1954
10. What standard specifies requirements for occupational health and safety management?
- (a) OSHAS 180000 (b) ISO 2001  
(c) BIS 20001 (d) ISO 25423

**Part B**

(5 × 5 = 25)

Answer **all** the questions, choosing either (a) or (b).

11. (a) Define safety policy and discuss the need for it.

Or

- (b) Explore the steps involved in accident investigation.

12. (a) How can you protect your head? And list the head protective equipment.

Or

- (b) Mention the skin protection methods and discuss anyone with relevant data.

13. (a) Define the following :

(i) current,

(ii) power,

(iii) voltage.

Or

- (b) Shortly discuss the Indian electricity rules.

14. (a) List the types of chemicals and mention their significance of it.

Or

- (b) Explain the importance of the safety data sheet.

15. (a) What are hazardous waste management rules?

Or

- (b) ISO 14000- briefly discuss about it.

**Part C**

(5 × 8 = 40)

Answer **all** the questions, choosing either (a) or (b).

16. (a) Briefly discuss about the hierarchy of controlling hazards.

Or

- (b) Define Audit. And explain the work permit system.

17. (a) Explore the ear protection methods and name the ear protection PPE equipment.

Or

- (b) Mention the types of respirators and discuss the protection method.

18. (a) Explain the following :

- (i) Overloads,
- (ii) Short circuits.

Or

(b) Elaborately discuss the international standards on Electrical safety.

19. (a) Briefly discuss about biohazards.

Or

(b) Describe in detail about HAZCHEM code and tracking of chemicals.

20. (a) Explain in detail about the storage and handling of hazardous chemicals.

Or

(b) Briefly discuss about HASAWA 1974, UK.

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