

**Ist Year/One Year Post Diploma in Industrial Safety**  
**Branch: Industrial Safety**  
**Subject: Safety Management**

**Time : 3 Hrs.****M.M. : 100****Section -A****Note: Multiple Choice questions. All questions are compulsory.****10x1=10**

- Q.1 Safety management principles and practices emphasize:
- Cutting corners to save costs
  - Minimizing safety training
  - Proactively preventing accidents
  - Ignoring safety regulations
- Q.2 Which principle guides accident prevention by eliminating hazards before accidents occur?
- Proactive principle
  - Reactive principle
  - Passive principle
  - Inactive principle
- Q.3 The domino theory suggests that accidents result from:
- A single cause
  - A chain of events
  - Random occurrences
  - Intentional actions
- Q.4 Which model of accident prevention emphasizes the role of organizational culture and management practices in shaping safety outcomes?
- Heinrich's Model
  - Systems Theory
  - Behavior-Based Safety Model
  - Bowtie Model
- Q.5 Check list for Job Safety Analysis (JSA) consists of
- Work area, material, machine, tools
  - Men, machine, material, tool
  - Men, machine, work area, tool
  - Men, material, work area, tool
- Q.6 A safety programme consists of
- Three E's
  - Four E's
  - Five E's
  - Six E's
- Q.7 What is the first step in the process of safety planning?
- Implementation
  - Evaluation
  - Identification of hazards
  - Ignoring risks
- Q.8 According to Heinrich's Theory, what percentage of accidents are believed to be caused by unsafe acts?
- 90%
  - 75%
  - 50%
  - 25%
- Q.9 Following is the vital element of Management?
- LTI
  - Planning
  - Near Miss
  - First aid

- Q.10 Training is most effective in resolving:
- Skill gaps
  - Attitudinal problems
  - Poor motivation
  - Attendance issues

### Section-B

**Note: Objective type questions. All questions are compulsory.**

**10x1=10**

- Q.11 Management by Objectives is a management approach where specific objectives are set collaboratively between managers and employees, aligning individual goals with organizational objectives.
- True
  - False
- Q.12 The process of implementation refers to the systematic execution of strategies and plans formulated during strategic \_\_\_\_\_.
- Q.13 Formula for Accident frequency rate
- Q.14 The Safety Committee should consist of equal numbers of representatives from both management and workers.
- True
  - False
- Q.15 The primary role of a Safety Officer is to promote and maintain a safe and healthy work environment for employees.
- True
  - False
- Q.16 SWOT analysis is a strategic \_\_\_\_\_ used to identify and analyze the internal strengths and weaknesses of an organization, as well as the external opportunities and threats it faces.
- Q.17 Section \_\_\_\_\_ of the Factories Act requires employers to consult with workers or their representatives on matters related to safety, health, and welfare.
- Q.18 Maslow's Hierarchy of Needs suggests that individuals are motivated by a hierarchy of needs, starting with basic physiological needs (such as food and shelter) and progressing to higher-order needs like safety, belongingness, esteem, and self-actualization.
- True
  - False
- Q.19 \_\_\_\_\_ department is responsible for developing and implementing safety programs, policies, and procedures to mitigate workplace hazards and promote a culture of safety.
- Q.20 \_\_\_\_\_ suggests that behavior is influenced by the consequences that follow it, with positive consequences reinforcing desired behaviors and negative consequences discouraging undesired behaviors.

### Section -C

**Note: Short answer type Questions. Attempt any twelve questions out of fifteen questions.**

**12x5=60**

- Q.21 How are safety committee members selected, and what are their roles and responsibilities within the organization?
- Q.22 Provide examples of strategic planning initiatives specifically aimed at improving workplace safety and health.
- Q.23 Discuss the specific functions of the safety department in implementing safety policies and procedures within an organization.
- Q.24 Can you outline the qualifications and training requirements typically expected of a safety officer?
- Q.25 Describe the process of conducting an accident investigation, including the key steps involved and the documentation required for record-keeping purposes.
- Q.26 Explore various theories of accident occurrences, such as Heinrich's Domino Theory or the Systems Theory, and discuss their implications for accident prevention strategies.
- Q.27 How can effective communication contribute to a safer work environment, and what barriers to communication should organizations be aware of?

- Q.28 Provide examples of different conflict resolution techniques and how they can be applied to manage conflicts related to safety issues.
- Q.29 Explain how management commitment to safety can influence employee attitudes and behaviours towards safety in the workplace.
- Q.30 Discuss the role of trade unions in advocating for improved safety standards, negotiating safety-related policies, and representing workers' interests in safety matters.
- Q.31 What are the essential components of a safety manual, and how can it be effectively utilized to promote safety awareness and compliance among employees?
- Q.32 Explore case studies or examples illustrating the impact of human factors, such as fatigue, stress, or complacency, on accident causation and prevention.
- Q.33 Analyze the advantages and disadvantages of decentralizing authority in safety management decision-making processes within organizations.
- Q.34 Discuss the economic, social, and legal consequences of industrial accidents for both workers and employers.
- Q.35 How can TQM principles such as continuous improvement, customer focus, and employee involvement be applied to enhance safety, health, and environmental performance in organizations?

#### **Section-D**

**Note: Long answer questions. Attempt any two questions out of three questions.**

**2x10=20**

- Q.36 Define emergency planning and outline its scope and objectives in the context of industrial safety. Discuss the importance of identifying and assessing hazards in emergency planning processes, including the methods and tools used for hazard identification and risk assessment.
- Q.37 Explain the potential consequences of major industrial accidents, including environmental damage, human casualties, economic losses, and long-term health effects.
- Q.38 Analyze the role of modern methods such as data analytics, machine learning, and predictive modeling in enhancing the analysis and utilization of safety-related information for proactive risk management and decision-making.