

C-2741

Sub. Code

50121

DIPLOMA EXAMINATION, APRIL 2024

Second Semester

Fire and Industrial Safety Management

HAZARD IDENTIFICATION, RISK ASSESSMENT
AND RISK CONTROL

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Section A

(10 × 1 = 10)

Answer **all** the questions.

1. What is the main purpose of hazard identification?
 - (a) To minimize the effect of consequences
 - (b) For better risk management
 - (c) To characterize the adverse effect of toxins
 - (d) To reduce the probability of occurrence

2. An accident is a ————— sudden mishap.
 - (a) Unforeseen
 - (b) Uncontrolled
 - (c) Undesirable
 - (d) All of these

3. Which is the not the part of the immediate cause?
 - (a) Unsafe act
 - (b) Unsafe condition
 - (c) Physical condition of worker
 - (d) Fire

4. Risk management is responsibility of the
 - (a) Customer
 - (b) Investor
 - (c) Project team
 - (d) Production team

5. Safety management deals with
 - (a) Loss of life
 - (b) Personal injury
 - (c) Damage to the equipment
 - (d) Prevention of an accident

6. Which is a top down method of analysing risk?
 - (a) FTA
 - (b) FEMA
 - (c) Hazards
 - (d) Damages

7. Which analysis uses the graphical representation of hazards?
 - (a) Power model
 - (b) FTA
 - (c) FEMA
 - (d) First power model

8. The main purpose of hazard identification is
 - (a) To minimize the effect of the consequences
 - (b) For better risk management
 - (c) To characterize the adverse effect of toxins
 - (d) To reduce the probability of occurrence

9. Who is the most likely to bear risk from harm in the work place?
 - (a) Customers
 - (b) Full time workers
 - (c) Visitors
 - (d) People with disabilities

10. The technique which ensure that impact of risk will be less is
- (a) Risk avoidance technique
 - (b) Risk mitigation technique
 - (c) Risk contingency technique
 - (d) All of the above

Section B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) What is hazard? How many types of hazards are there?

Or

- (b) Write short notes on safety warning system.

12. (a) Why risk analysis is required?

Or

- (b) Explain root cause analysis.

13. (a) Draw a HAZOP methodology.

Or

- (b) Describe the event tree analysis.

14. (a) What is HIRA? Write about its objectives.

Or

- (b) Elaborate risk analysis.

15. (a) State the necessity of past accident analysis.

Or

- (b) Brief Mexico disaster.

Section C

(5 × 8 = 40)

Answer **all** the questions.

16. (a) Explain unsafe act and unsafe condition with an incident.

Or

- (b) What are the five major hazards in the work place? How one can control them?

17. (a) What are the five main steps in risk analysis?

Or

- (b) Brief the risk analysis process.

18. (a) What is FEMA? Explain its methodology.

Or

- (b) Explain the uses of HAZOP and HAZAN.

19. (a) Discuss about the steps involved in hazard identification and risk assessment.

Or

- (b) Describe the hazard and risk evaluation.

20. (a) Proof the past accident analysis acts as information source for hazard analysis.

Or

- (b) Explain Flixborough and Sevaso disasters

C-2742

Sub. Code

50122

DIPLOMA EXAMINATION, APRIL 2024

Second Semester

Fire and Industrial Safety Management

SAFETY INSPECTION AND AUDIT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. If you notice a hazard in a work place what should you do?
 - (a) Simply ignore it
 - (b) Report it to supervisor
 - (c) Share it social media
 - (d) Take a video and share it online
2. The purpose of safety inspection in work place is
 - (a) To implement company rules and regulations
 - (b) To assign blame in case of accidents
 - (c) To promote a safety culture
 - (d) To address safety concern

3. The aim of safety audit is
 - (a) To identify potential hazards and improve safety practices
 - (b) To measure project progress
 - (c) To estimate project costs and expenses
 - (d) To assess the quality of materials

4. Which one is most likely to cause repeat audit findings?
 - (a) Competency
 - (b) Management systems
 - (c) Safety culture
 - (d) Interest

5. What is the major weakness in the walk around safety inspection process?
 - (a) Takes too much time
 - (b) Does not adequately identify unsafe behaviours
 - (c) Does not adequately identify hazardous conditions
 - (d) Requires both employee and management participation

6. The legal responsibilities of employer with regards to OH & S include what?
 - (a) Charging employees for replacing damaged PPE
 - (b) Providing safety systems of work for all employees
 - (c) Taking out additional insurance for dangerous work
 - (d) Ensuring that only one member of staff works on a dangerous job

7. What is the advantage of implementing ISO 45001 with in an organization?
 - (a) Drives continual improvement
 - (b) Enhances customer confidence
 - (c) Assists with regulatory compliance
 - (d) All of the above

8. The purpose of ISO 14001 is
 - (a) To help the organization to improve their environmental performance
 - (b) To ensure compliance with environmental regulations
 - (c) To reduce costs
 - (d) To establish a frame work for social responsibility

9. One of the following is not a benefit of implementing ISO 14001:2015
- (a) Improved environmental performance
 - (b) Increased efficiency and productivity
 - (c) Enhanced stock holders confidence
 - (d) Automatic compliance with all applicable regulations
10. Which EIA tool identifies action – effect – impact relations in a best manner?
- (a) Check lists
 - (b) Net works
 - (c) Inter action matrices
 - (d) SWOT

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) State the purpose of work place inspection.
Or
(b) List out the objectives of work place inspection.
12. (a) State the aim of safety audit.
Or
(b) What are on site activities?

13. (a) What OHSMS stands for and mention the aim of OHSMS?

Or

- (b) Write down the key principles of ISO 45001 and brief any one of them.

14. (a) Mention the main points of ISO 14001 and give its three pillars.

Or

- (b) State the five stages of ISO 14001 and their internal issues.

15. (a) Justify the main aim of environment impact assessment and give its main points.

Or

- (b) Elaborate the seven steps of EIA.

Part C

(5 × 8 = 40)

Answer **all** questions.

16. (a) What is work place inspection and state its importance?

Or

- (b) How to eliminate work place hazards?

17. (a) Draw a methodology to conduct safety audit.

Or

- (b) Write short notes on pre and post audit activities.

18. (a) Give a brief introduction to ISO 45001.

Or

(b) Describe the contents and scope of ISO 45001.

19. (a) What is ISO 14001? Brief its necessity.

Or

(b) Discuss on the three levels of documentation for ISO 14001.

20. (a) Explain the general principles and stages of LCA.

Or

(b) State the principles and rules for ECO labelling in detail.
