

CP-8423

Sub. Code

11

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2017.**

Fire and Industrial Safety Management

**PRINCIPLES OF SAFETY MANAGEMENT
GENERAL SAFETY**

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define House Keeping.
2. Define Lost Time Injury.
3. What is pest control?
4. Define natural gas?
5. What is safety signage?
6. Define factories act 1948.
7. What are the types of PPE's?
8. Write the PPE's used for welding.
9. How do you identify the training need?
10. Define Brainstorming.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write short notes on House Keeping and 5S concept.

Or

- (b) Write any five accident prevention tags.

12. (a) Write short notes on LPG safety.

Or

- (b) Write the fuel saving tips for house wives.

13. (a) List any five laws relating to HSE.

Or

- (b) Explain MSME act.

14. (a) Write short notes on general protection.

Or

- (b) Write a short note on maintenance and care of Respiration protective equipments.

15. (a) Develop a program to celebrate 'Safety week'.

Or

- (b) Write the don'ts at a Brainstorming session.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain eighteen ways that a good supervisor puts safety to work.

Or

- (b) Write the Points that supervisor should know about safety.

17. (a) Explain the safety precautions to be taken at Home.

Or

- (b) Explain the Do's and Don'ts in domestic electrical appliances.

18. (a) Explain classification of respiratory protective equipments.

Or

- (b) Explain the various safety training methods which can be adopted in an industry.
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**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2017**

Fire and Industrial Safety Management

**FIRE PREVENTION, CONTROL & ELEMENTARY
FIRST AID**

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define auto ignition.
2. What are the fire resistant materials?
3. What are the types of detectors?
4. Write short notes on flash fire.
5. Discuss DCP, AFFF.
6. Define natural gas and its properties.
7. How will you classify the petroleum products based on the flash point?
8. What are the legislation and regulation for public places?
9. What are the fire prevention procedures in motor vehicle?
10. Write short notes common causes of electrical fire.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write short notes on BLEVE.

Or

- (b) Explain about ACTIVE and PASSIVE fire protection systems.

12. (a) Explain about emergency procedures in case of gas leakage.

Or

- (b) What are the safety precautionary measures for customer at petrol pump?

13. (a) Explain fire precautionary measures in residential place.

Or

- (b) Explain about evacuation and training for fire safety in chemical laboratories.

14. (a) What are the common causes of Fire in motor vehicle?

Or

- (b) Explain about the heat radiation hazards level.

15. (a) Describe electrical safety with the voltage operated ELCB.

Or

- (b) Describe electrical safety with RCCB/RCD.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Describe about maintenance of fire extinguishers.

Or

- (b) Explain emergency action plan.

17. (a) Explain the following on petroleum plant.

- (i) Fire protection system
- (ii) Hydrant systems
- (iii) Water monitors.

Or

- (b) Describe about escaping from a high rise building in case of fire.

18. (a) Explain hazards and precautionary measures use of CNG / LPG in vehicles.

Or

- (b) Explain the safety precaution for handling and use of inverter.

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**CERTIFICATE COURSE IN FIRE AND INDUSTRIAL
SAFETY MANAGEMENT EXAMINATION,
NOVEMBER 2017.**

ELECTRICAL & CHEMICAL SAFETY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Ventricular fibrillation.
2. Mention any two reasons for Electrical fire.
3. What do you mean by contract electrification?
4. Mention any two hazards of Static Electricity.
5. Define Ingestion.
6. Mention the PPE's used for chemical safety.
7. Define Safety Audit.
8. What is Safety report?
9. Write the use of MSDS.
10. Define National Electrical code.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write a brief note on ELCB.

Or

- (b) Explain the generation of static electricity.

12. (a) List few safety precautions to be followed while using acids and bases.

Or

- (b) Give the classification of hazardous area for electrical installation.

13. (a) Explain off-site emergency plan.

Or

- (b) Write short notes on solvents and their hazards.

14. (a) Briefly explain the flammable chemicals.

Or

- (b) Explain the notification of the major chemical accident.

15. (a) Write the general duties of the occupier under the section 7-A(1) and (2) (a) (c).

Or

- (b) Briefly explain the international standards.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss briefly about the safety precautions to be followed during temporary and permanent electrical installations.

Or

- (b) Write a brief note on : (i) Electrical safety program and (ii) Electrical injuries.
17. (a) Discuss briefly about the various methods for control of static electricity.

Or

- (b) Write a brief note on (i) Electrostatic occurrence and (ii) Electrostatic discharges.
18. (a) Discuss briefly about chemical hazards and its effect on human beings.

Or

- (b) Briefly discuss about Hazard identification and risk assessment as per OHSAS 18001.
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**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2017**

Fire and Industrial Safety Management

ELECTRICAL AND CHEMICAL SAFETY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the electrical injuries?
2. Write some tips to avoid dangerous shock.
3. What is static electricity?
4. What are the hazards present in static electricity?
5. What do you mean by IDLH?
6. What are routes of entry for chemicals?
7. What is the treatment for electric shock?
8. Define capacitor.
9. Write the preparation of offsite emergency plan.
10. What are the general responsibilities of the occupier?

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write the instructions to avoid electrical injuries in detail.

Or

- (b) How will you save the electricity in compressed air system?

12. (a) Explain charge generating mechanism.

Or

- (b) Explain earthing and bonding.

13. (a) Write short notes on solvents and their hazards.

Or

- (b) Write short notes on acids and bases.

14. (a) Write the general duties of the occupier under the section 7-A (1) and (2) (a) (c).

Or

- (b) Briefly explain the international standards.

15. (a) Explain the notification of the major chemical accident.

Or

- (b) Briefly explain the flammable chemicals.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) What are the steps involved in the checklist for electrical installation?

Or

- (b) Explain the static electricity, hazards associated with static electricity and also write the control measures for it.
17. (a) Explain the classification of flammable liquids and write the control measures for it.

Or

- (b) Describe the Indian Electricity Act, 1910.
18. (a) What are the details to be furnished in Offsite Emergency Plan?

Or

- (b) What are the general responsibilities of :
- (i) Transporter
 - (ii) Driver
 - (iii) Owner.

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**CERTIFICATE COURSE IN FIRE AND INDUSTRIAL
SAFETY EXAMINATION, NOVEMBER 2017**

INDUSTRIAL SAFETY AND RISK MANAGEMENT

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Management.
2. Give the structure of Safety Committee.
3. What is Incident?
4. Write any two ways to improve occupational health.
5. What is Permit to work system?
6. Define Electrocution.
7. What do you mean by unsafe condition?
8. Define unsafe act.
9. Name any two fire extinguishing technique.
10. Define Explosion.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Explain the various Functions of safety department.

Or

- (b) Give a brief note on occupational health.

12. (a) Write a note on Material handling.

Or

- (b) Briefly explain Faulty handling of equipments.

13. (a) Explain the prevention of explosions.

Or

- (b) Briefly explain about the corrosive substance.

14. (a) Discuss about the faulty handling of equipment in the Bhopal gas tragedy.

Or

- (b) Explain about the lapse in safety organisation in Bhopal gas tragedy.

15. (a) Explain the electricity – accident.

Or

- (b) Explain detail about the glosorry.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss briefly about Safety Management.

Or

- (b) Write in detail about the various elements of safety programming.

17. (a) Discuss in detail about prevention of accidents involving hazardous substances.

Or

- (b) Briefly discuss about the emergency preparedness plan.

18. (a) Describe in detail the specific control measures adopted for handling of corrosive substances with suitable example.

Or

- (b) Briefly discuss about the Safeguarding against common potential hazards namely slips, trips and falls.
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**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2017**

**Fire and Industrial Safety Management
CONSTRUCTION SAFETY MANAGEMENT**

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are main objectives of BOCW act 1996?
2. Define welfare facilities.
3. Define excavation.
4. Define fragile roof.
5. List out the hot works in construction site.
6. List out the common causes for fire at site.
7. Define National Building Code.
8. Define seismic forces.
9. Define guard rail.
10. Define scaffolding and its types.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Explain with briefly about crane and lifting appliances.

Or

- (b) Explain about safety work cycles at construction sites.

12. (a) Discuss about the working near fragile materials.

Or

- (b) What are the safety precautions in excavation?

13. (a) Explain the safe use of fixed ladder.

Or

- (b) Write about the emergency preparedness.

14. (a) Explain the design of earthquake resistant structures.

Or

- (b) Write a short note about repair and seismic strengthening of buildings.

15. (a) What are the requirements for safe work platform?

Or

- (b) Discuss about the scaffolding inspections.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain with briefly about safety & health provisions for construction workers under BOCW act 1996.

Or

- (b) Explain with briefly about safety & health construction sites - check list.
17. (a) Write down the important of safety features of elevators by Bombay lift rule.

Or

- (b) Explain briefly about the salient features of NBC 2005.
18. (a) Explain IS 1893-Part 1: 2002.

Or

- (b) Explain in detail about work over water and hot surfaces.
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**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2017**

Fire and Industrial Safety Management

SAFETY AT OIL, GAS AND NUCLEAR PROJECTS

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Safety Training.
2. What are the types of hand gloves?
3. Define SCBA.
4. Define hot work.
5. Define scaffolding.
6. Define abrasive blasting.
7. Define MSDS.
8. What are the types of hazardous chemicals?
9. Define near miss.
10. What is first aid firefighting equipment?

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) What are the rules for safety?

Or

- (b) Explain about hand protection and hearing protection.

12. (a) Mention and explain the types of safety signs.

Or

- (b) Briefly explain about safety during painting.

13. (a) Briefly explain about safety in crane operations.

Or

- (b) Briefly explain about safety in hooking loads.

14. (a) Briefly explain about safety in lift trucks.

Or

- (b) Explain about slip trip and fall.

15. (a) What are the safety measures required during manual material handling?

Or

- (b) Explain about conveyor safety.

Part C $(3 \times 10 = 30)$ Answer **all** questions.

16. (a) Explain in detail about emergency planning and response.

Or

- (b) What is PPE? Explain about types of PPE from head to toe with examples.

17. (a) Explain in detail about safety during welding, grinding and gas cutting.

Or

- (b) Explain in detail about chemical safety. Explain about MSDS.

18. (a) Explain in detail about accident and near miss reporting.

Or.

- (b) Explain about the first aid measures to be taken during :

- (i) Gas poisoning
- (ii) Burns
- (iii) Electric shock
- (iv) Heart attack
- (v) Chemical splash.