

CP-9752

Sub. Code

21511

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

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. Write any two treatments for shock.
2. Define House Keeping.
3. Define Lost Time Injury.
4. What is pest control?
5. Define natural gas.
6. What is safety signage?
7. Define factories act 1948.
8. What are the types of PPE's?
9. Write the PPEs used for welding.
10. Define motivation.

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

11. (a) Explain computation of Rates.
- Or
- (b) Write short notes on House Keeping and 5S concept.
12. (a) Explain Prevention and First aid measures for domestic burns.
- Or
- (b) Write short notes on LPG safety.
13. (a) Write short notes on Noise pollution rules 2000.
- Or
- (b) List any five laws relating to HSE.
14. (a) Write short notes on Implementation of PPE among workers.
- Or
- (b) Write short notes on general protection.
15. (a) Explain Occupational Safety and Health Training.
- Or
- (b) Develop a program to celebrate 'Safety week'.

Part C (3 × 10 = 30)Answer **all** the questions.

16. (a) Explain any ten first aid measures for specific accident or illness.
- Or
- (b) Explain eighteen ways that a good supervisor puts safety to work.

17. (a) Explain the safety usage of pest control at home.

Or

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

18. (a) Explain Limitations and cautions in the use of different type of respiratory protective equipments.

Or

(b) Explain classification of respiratory protective equipments.

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21512

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

Fire and Industrial Safety Management

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

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define fire triangle.
2. What are the types of water monitors?
3. When will you do maintenance for fire extinguishers?
4. Discuss on fire alarms and sirens.
5. Define CNG and its properties.
6. What are the type's petroleum storage tanks?
7. What is control room?
8. What are the legislation and regulation for public places?
9. What are the Vulnerable Materials?
10. Define cold storage.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write short notes on BLEVE.

Or

- (b) Explain the classification of fire.

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

Or

- (b) Describe about fire hazard analysis (FHA).

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

Or

- (b) Explain fire protection procedure in temporary occupancies.

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) Explain fire safety principles causes in godown.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain emergency action plan.

Or

(b) Explain the following.

- (i) Pool fire
- (ii) flash fire
- (iii) jet fire
- (iv) BLEVE
- (v) UVCE

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

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

Or

(b) Explain Fire safety measures in Hazardous goods.

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

Or

(b) Explain basic requirements of fire fighting equipments in Transformers, DG sets, Substations.

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21513

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

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 & bonding.

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

Or

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

14. (a) Write the general duties of the occupier under the section 7-A (1) & (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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21514

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

Fire and Industrial Safety Management

INDUSTRIAL SAFETY AND RISK MANAGEMENT

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define safety committee.
2. What is Paradoxical?
3. Define Accident.
4. Define ERP Team.
5. Define slip, trip and fall.
6. Define Frequency Severity index.
7. Write short notes on chemical handling.
8. What is Anticipation?
9. List some physical hazards.
10. What are the major reasons for Tractor overturn?

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

11. (a) Explain the elements of safety management.

Or

- (b) Write short notes on system audit.

12. (a) Write short notes Ergonomic hazards.

Or

- (b) Explain the role of safety professional.

13. (a) Write short notes on Forklift training.

Or

- (b) Write the recommendation for Confined space entry and hot work permit.

14. (a) Write short notes on Personal protective equipment.

Or

- (b) Write short notes on manual material handling.

15. (a) Write short notes on stages of Brainstorming.

Or

- (b) Write short notes on causative factors.

Part C**(3 × 10 = 30)**Answer **all** questions.

16. (a) Explain On-site and Off-site ERP.

Or

- (b) Explain Compressed Gas Cylinder.

17. (a) Explain the forklift hazards and control measures.

Or

(b) Explain in detail about safety management.

18. (a) Explain Static Electricity.

Or

(b) Explain Permit to Work.

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21515

**CERTIFICATE COURSE DEGREE EXAMINATION,
NOVEMBER 2018.**

Non-Semester

Fire and Industrial Safety Management

CONSTRUCTIONAL SAFETY MANAGEMENT

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. What are the types of ladder?
2. Define the term fragile.
3. What do you mean by noise?
4. What is scaffolding?
5. Explain the term NBC and BOCW.
6. What do you mean by inspection?
7. Define maintenance.
8. What is forklift?
9. List out some hazardous substances.
10. What is the use of checklist?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the hazards in chemical.

Or

(b) How to avoid the underground services?

12. (a) Explain First aid.

Or

(b) Difference between excavation and tunneling.

13. (a) Explain the personal protective equipments and its types.

Or

(b) Explain the daily safety work cycle.

14. (a) Explain the worksite clean up.

Or

(b) Explain the safety meeting.

15. (a) Explain the hazards in electrical.

Or

(b) Explain slipping and tripping hazard.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Briefly explain the scaffolding.

Or

(b) Explain the codes and standards provisions of Bombay list act 1939.

17. (a) Explain BOCW act 1996.

Or

(b) Explain the types and safe use of ladder.

18. (a) Explain the reinforced concrete structures subjected to seismic forces.

Or

(b) Briefly explain the excavation work.

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21516

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

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 rules of safety?
3. Define Safety signs.
4. Define LOTO.
5. Define scaffolding.
6. Define hot work.
7. Mention few power tools.
8. Define Electrical safety.
9. What are the uses of fire extinguisher?
10. Define near miss.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write short note on safety induction training.
Or
(b) Briefly explain emergency response.
12. (a) Briefly explain confined space safety.
Or
(b) Briefly explain barricades and barriers.
13. (a) Write short description scaffolding safety.
Or
(b) Briefly explain safety procedure in hot work area.
14. (a) Write short notes on safety in portable hand and power tool.
Or
(b) Write short description Electrical safety.
15. (a) Briefly explain near miss incident reporting.
Or
(b) Write short note on Environmental care.

Part C

(10 × 3 = 30)

Answer **all** questions.

16. (a) Explain in detail about :
(i) safety rules and
(ii) safety responsibilities.
Or
(b) Explain in detail about PPE.

17. (a) Explain safety sign with detailed diagram.

Or

(b) Explain in detail about crane safety.

18. (a) Explain about conveyor safety.

Or

(b) Explain in detail about First aid.

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21511

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

Fire and Industrial Safety Management

SAFETY CONCEPTS

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. What is Reportable accident?
2. Define Motivation.
3. Briefly explain about Safety Survey.
4. Distinguish between Frequency rate and severity rate.
5. What do you mean by Safety Audit?

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Explain IRT.

Or

- (b) Write short notes on Safety Inspection and Safety Department.

7. (a) Discuss in detail about Accident investigation and Analysis.

Or

- (b) Explain the Principles of Accident Prevention.

8. (a) Define and Explain FR, SR, FSI.

Or

- (b) Discuss in detail about AR, IR, STS.

9. (a) Write short notes on the Role of Government & Private consulting agencies in Safety training

Or

- (b) Explain the Safety Training Methods in detail.

10. (a) Discuss in detail about Safety Audit

Or

- (b) Write short notes on identification of UA of workers & unsafe conditions.

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21512

**CERTIFICATE COURSE DEGREE EXAMINATION,
NOVEMBER 2018**

Non-Semester

Fire and Industrial Safety Management

FIRE PREVENTION AND CONTROL

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What is Fire? Explain in detail with Fire Training.
2. Define the cooling method of Fire Fighting.
3. Explain the types of Fire extinguishers with examples.
4. What is First Aid? What are the First aid methods for "Cut" and "Burn".
5. Briefly explain the "Flash Point" and "Auto Ignition".

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) What are the roles and responsibilities of a Safety Officer.

Or

- (b) Why Safety Officer is equality treated as a production and HR Manager? How Safety Department become essential?

7. (a) What is High Risk Building? What are the Safety measures on it?

Or

- (b) Explain the properties and maintenance of Fire Truck.

8. (a) Define “Hose Reel” with the usage, mechanism and Safe Handling.

Or

- (b) What are Safety measures to be while maintaining?

- (i) Diesel Generator
- (ii) Ammonia (NH₃)

9. (a) Explain “Indian explosive Act and Rules” in detail.

Or

- (b) Discuss the Salient Features of “Indian Gas Cylinders Act”.

10. (a) What are the Safety Handling methods and maintenance of

- (i) Invertors
- (ii) Mobile phone
- (iii) Electrical cooker
- (iv) Iron box.

Or

- (b) How to avoid the Fire Accidents in

- (i) Home
- (ii) Vehicle
- (iii) Industry
- (iv) Stadium.

CP-9760

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21513

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018.**

Non-Semester

Fire and Industrial Safety Management

CONSTRUCTIONAL SAFETY

(Upto – 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** the questions.

1. Define safe construction.
2. What is exaction and its types.
3. Explain pre blast and post blast.
4. Define OSHA norms of fall protection in construction.
5. Explain demolition Safety.

Part B

(5 × 12 = 60)

Answer **all** the questions.

6. (a) Explain compensation, recording of accidents in a detail.

Or

- (b) Define safe construction and education and training in detail.

7. (a) Define the types of scaffold and its inspection check list.

Or

- (b) Explain the erection of structural frame work.

8. (a) What are the uses of conveyors and mobile cranes?

Or

- (b) Define the construction of high rise building.

9. (a) What are earth moving equipments? What are the safety measures to be followed while handling those equipments?

Or

- (b) Define Crane, its limitations and crane inspection check list in details.

10. (a) Explain the process of power plant construction and its safety.

Or

- (b) (i) Define confined space with the risks involved in it.
(ii) What are the safety measures to be obtained in confined space?

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21514

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

Fire and Industrial Safety Management

ELECTRICAL SAFETY

(Upto 2015 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define stored energy.
2. Define corona effect.
3. Define circuit breaker.
4. Define work permit.
5. List any five hazards in Electrical.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain the salient features of Indian electricity Act and Rules.

Or

- (b) Explain CPR in detail.

7. (a) Explain the hazards in electricity.

Or

(b) Write short notes on.

(i) Insulation classes

(ii) Voltage classification.

8. (a) Explain Grounding in detail.

Or

(b) Explain Overload and short circuit protection.

9. (a) Explain LOTO in detail.

Or

(b) Explain safety in the use of portable tools.

10. (a) Explain the classification of hazardous zone.

Or

(b) Explain the uses of barrier and insulators.

CP-9762

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21515

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2018**

Non-Semester

Fire and Industrial Safety Management

**SAFETY EQUIPMENTS AND PERSONAL PROTECTIVE
EQUIPMENTS**

(Upto 2015 batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define IS codes for PPE.
2. Explain pressure relief valve.
3. What is mean by Fire alarm?
4. Give the procedure for leg protection.
5. How to use work positioning belt?

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain maintenance of PPE and Safety equipments.

Or

- (b) Define in detailed manner
 - (i) IS codes for PPE
 - (ii) IS codes for Safety equipments
 - (iii) Selection criteria for PPE.

7. (a) Explain in detail: Circuit protection devices: ELCB, GFCI.

Or

- (b) Explain in detail: Non return valve and Pressure relief valve.

8. (a) Draw and explain
 - (i) Heat detector
 - (ii) Flame detector
 - (iii) Smoke detector.

Or

- (b) Illustrate the need for Fire alarm, Fire extinguishers, Fire ball and Fire hydrant.

9. (a) Describe:
 - (i) Non-Respiratory PPE's,
 - (ii) Head protection,
 - (iii) Body protection,
 - (iv) Face protection and
 - (v) Foot protection.

Or

- (b) Respiratory PPE's: Air purifier type —
 - (i) Chemical protection and
 - (ii) Mechanical protection.

10. (a) Explain the chute line
- (i) Vertical and Horizontal
 - (ii) Shock absorber and Descender.

Or

- (b) Explain Connectors.
- (i) Snap hook
 - (ii) Carabineer hook.
-