

| |
|---------------|
| C-1338 |
|---------------|

| |
|------------------|
| Sub. Code |
|------------------|

| |
|--------------|
| 21511 |
|--------------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non - Semester

Fire 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 Housekeeping.
2. Define Frequency rate.
3. Write the Permissible SAR value of mobile phones.
4. What is TWA?
5. Define Noise pollution.
6. What is MSME?
7. What are the types of PPE?
8. What is the use of Barrier cream?
9. Define Safety training.
10. Write the objective of BBS.

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

11. (a) Write short notes on Accident prevention tag.

Or

- (b) Write the First Aid procedures for

- (i) Shock.
- (ii) Fainting.
- (iii) Sprains.

12. (a) How to make your home safety for Children?

Or

- (b) What are the safety aspects of piped natural gas supply?

13. (a) Write short notes on Employee compensation Act. 1923.

Or

- (b) Write short notes on Indian Explosive Act 1984.

14. (a) Write short note on Head protection.

Or

- (b) Write short notes on Foot and Leg protection.

15. (a) Explain the stages of Brainstorming.

Or

- (b) What are the Results of BBS?

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

16. (a) Explain Housekeeping in detail.

Or

(b) Explain LPG safety in detail.

17. (a) Explain MSME Act 2006.

Or

(b) Explain Maintenance and care of Respiratory protective equipments.

18. (a) Explain the four key components of BBS.

Or

(b) Explain the prevention and First Aid for domestic burn.

| |
|---------------|
| C-1339 |
|---------------|

| |
|------------------|
| Sub. Code |
|------------------|

| |
|--------------|
| 21512 |
|--------------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non-Semester

Fire and Industrial Safety Management

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

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Fire Load.
2. What is the standard height of Hydrant post?
3. What are the types of storage in tank form?
4. Define CNG.
5. What is High rise building?
6. What are the common causes of fire in chemical laboratories?
7. What is TREMCARD?
8. Define HAZCHEM code?
9. What are the three main components of an inverter?
10. What are the common causes of Electrical Fire?

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

11. (a) Explain the classification of Fire with example

Or

- (b) Write short notes on Water monitors.

12. (a) Write the properties of LPG.

Or

- (b) Explain Fire protection system design criteria.

13. (a) Explain the prevention of fire in Educational institution.

Or

- (b) Write the safety measures to be taken to reduce Fire risk by Tenants.

14. (a) Write the common causes of fire and Explosion in transportation.

Or

- (b) Write short notes fire safety measures in motor vehicles.

15. (a) Explain the hazards in Inverter.

Or

- (b) Write short notes on vulnerable material.

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

16. (a) Explain Fire Escape Plan.

Or

(b) Explain safety in Domestic Industrial cylinder.

17. (a) Explain Fire safety measures in small scale industries.

Or

(b) Explain Fire safety measures in Hazardous Goods.

18. (a) Explain Electrical safety with RCCB.

Or

(b) Explain Do's and Don'ts for safe handling and use of Inverter.

C-1340

Sub. Code

21513

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

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. Define Electric shock.
2. Define static Electricity.
3. Define IDLH value.
4. Define Capacitor.
5. List five hazardous chemicals.
6. Write first aid for chemical accidents.
7. Define Earthing.
8. What are the types of chemicals?
9. Define Acute and Chronic effect.
10. What is GFCI?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain Electrostatic hazards and control.

Or

- (b) Write the recommendations for better utilization of lighting energy.

12. (a) Write first aid for burn injury.

Or

- (b) Write the safety precautions for static electricity.

13. (a) Explain the Air contaminants.

Or

- (b) Explain the types and effects of chemicals.

14. (a) Write short notes on storage and handling of hazardous chemicals.

Or

- (b) Write short notes on hazards associated with Acid and Bases.

15. (a) Write short notes on classification of hazardous area.

Or

- (b) Write short notes chemical safety reports.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the salient features of Indian Electricity Act 2003.

Or

- (b) Explain first aid for Electric shock.

17. (a) Explain SDS in detail.

Or

- (b) Explain the classification of flammable liquids.

18. (a) Explain ELCB.

Or

- (b) Explain saving of Electricity using Cooling towers and Illumination system.
-

C-1341

Sub. Code

21514

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

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 management.
2. What is the importance of a safety meeting?
3. What are the roles and responsibilities of a safety professional?
4. Define ERP team.
5. Define Slip, Trip and Fall.
6. Define Severity rate.
7. List any four Forklift hazards.
8. Write short notes on MIC.
9. List out the physical hazards.
10. Write short notes on Air Explosion.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain Competency mapping in detail.

Or

- (b) Write short notes on.
(i) CIRP
(ii) System Audit.

12. (a) Explain the element of a safety program.

Or

- (b) Explain in detail about safety committee.

13. (a) What are the human factors affecting the work place safety?

Or

- (b) Explain the Do's and Don'ts at brainstorming session.

14. (a) Write short notes on.

- (i) Physical Hazards.
(ii) Mechanical Hazards.
(iii) Chemical hazards.

Or

- (b) Write short notes on material handling.

15. (a) Explain how to manage fire safety at chemical safety.

Or

- (b) Write short notes on static Electricity.

Part C

(3 × 10 = 30)

Answer **all** questions.

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

Or

- (b) Write short notes on.
- (i) Air Contamination.
 - (ii) Biological Hazards.
 - (iii) Ergonomic Hazards.

17. (a) Explain Work permit in detail with a format.

Or

- (b) Explain the hazards in Confined space and its control measures.

18. (a) Explain Bhopal Gas Tragedy in detail.

Or

- (b) Explain Hydrocarbon and its classes.
-

| |
|--------|
| C-1342 |
|--------|

| |
|-----------|
| Sub. Code |
|-----------|

| |
|-------|
| 21515 |
|-------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non-Semester

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. Define Noise.
2. Define First Aid.
3. What are the Excavation Hazards?
4. Define CPR.
5. What are the common causes of fire?
6. What is Hot work?
7. What is NBC?
8. Define ERP.
9. What is PFAS?
10. Write the components of Scaffolding.

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

11. (a) Explain lighting and its importance.

Or

- (b) Write the difference between Excavation and Trench.

12. (a) Write short notes on chemical hazards present in construction.

Or

- (b) Explain short notes on working near fragile roof.

13. (a) Explain Emergency preparedness in fire Emergency.

Or

- (b) Explain safety for climbing and standing in ladder.

14. (a) Write short notes on National Building Code.

Or

- (b) Write short notes on design of Earth quake resistance structure.

15. (a) Explain the maintenance and storage of Scaffolding.

Or

- (b) Write short notes on PFAS.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain BOCW Act 1996.

Or

(b) Explain the chemical hazards in construction site.

17. (a) Write short notes on :

(i) Hoist

(ii) Crane

(iii) Lifting Equipment.

Or

(b) Explain the safety tips for excavation work.

18. (a) Explain Scaffolding and its types.

Or

(b) Explain Personal Protective Equipment and its types.

| |
|---------------|
| C-1343 |
|---------------|

| |
|------------------|
| Sub. Code |
|------------------|

| |
|--------------|
| 21516 |
|--------------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non-Semester

Fire and Industrial Safety Management

SAFETY AT OIL, GAS AND UNCLEAR PROJECTS

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define ERP.
2. What is safety Induction training?
3. What is a Confined space?
4. Define SCUBA, SCBA.
5. Define Hot work.
6. Define Excavation.
7. Define Electric shock.
8. Define Slip, Trip and Fall.
9. Define Accident.
10. Define CPR.

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

11. (a) Explain the safety responsibilities.

Or

- (b) Write short notes on Respiratory PPE and its maintenance.

12. (a) Write short notes on LOTO.

Or

- (b) Write short notes on Compressed Gas Cylinders.

13. (a) Write Short notes on Hot Work.

Or

- (b) Write short notes on Abrasive Blasting.

14. (a) Write short notes on portable hand tools and Power tools.

Or

- (b) Write short notes on Electrical Safety.

15. (a) Explain CPR in detail.

Or

- (b) Explain Fire Extinguisher and its types.

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

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

Or

- (b) Explain the purpose of safety induction training.

17. (a) Write short notes on Safety signage, Displays and Barrier.

Or

- (b) Explain Zero Mechanical state.

18. (a) Write short notes on

- (i) Accident.
- (ii) Near miss.
- (iii) Incident.
- (iv) Office safety.

Or

- (b) Explain Excavation hazards and its control measures.
-

| |
|---------------|
| C-1344 |
|---------------|

| |
|------------------|
| Sub. Code |
|------------------|

| |
|--------------|
| 21511 |
|--------------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non-Semester

Fire and Industrial Safety Management

SAFETY CONCEPTS

(Upto 2015 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define Frequency rate.
2. Define Direct and Indirect cause
3. Define safety T score.
4. Define unsafe act and unsafe condition.
5. Define safety committee.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain Incident recall techniques.

Or

- (b) Write the importance of training.

7. (a) Explain Safety audit.

Or

(b) Explain safety survey.

8. (a) Explain safety signs.

Or

(b) Write in detail about safety organization.

9. (a) Explain JSA in detail.

Or

(b) Discuss the various methods of safety training.

10. (a) Prepare a check list for safety audit.

Or

(b) Write any ten safety slogans.

| |
|--------|
| C-1345 |
|--------|

| |
|-----------|
| Sub. Code |
|-----------|

| |
|-------|
| 21512 |
|-------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non – Semester

Fire and Industrial Safety Management

FIRE PREVENTION AND CONTROL

(Upto 2015 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **All** questions.

1. Define Flash fire.
2. Define Hydrant.
3. What are the types of fire?
4. Define Fire load.
5. What is a high rise building?

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain the fire properties of solid, liquid and gases.

Or

- (b) Explain the theory of Combustion.

7. (a) Explain Active and Passive fire protection systems.

Or

(b) Explain the types of Extinguisher.

8. (a) How does the CO₂ system and Foam system are helpful in fire protection.

Or

(b) Explain the following.

(i) Hydrants.

(ii) Sprinkler

9. (a) Explain the fire safety requirements in high rise building.

Or

(b) Write short notes on

(i) Fire load.

(ii) Fire resistant material and fire testing.

10. (a) Explain Indian explosive act and rules.

Or

(b) Explain the principles and parameters of Explosion.

| |
|---------------|
| C-1346 |
|---------------|

| |
|------------------|
| Sub. Code |
|------------------|

| |
|--------------|
| 21513 |
|--------------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non - Semester

Fire and Industrial Safety Management

CONSTRUCTIONAL SAFETY

(Upto 2015)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What are the types of Disabilities?
2. Define Tunneling.
3. What are the types of crane?
4. What is a three point contact?
5. Define First aid.

Part B

(5× 12 = 60)

Answer **all** questions

6. (a) Discuss about recording of accidents and safety measures.

Or

- (b) Explain the types and causes of accidents related to various construction activities.

7. (a) What is blasting? Explain about pre blast and post blast inspection.

Or

- (b) Write short notes on
- (i) Excavation.
 - (ii) Wide Excavation.
 - (iii) Trenches.
 - (iv) Shafts.

8. (a) Explain in detail about Earth moving equipments.

Or

- (b) Explain the safety monitoring systems in detail.

9. (a) Write short notes on

- (i) Excavator.
- (ii) Concrete pumps.
- (iii) Dumpers

Or

- (b) Explain the selection, operation, inspection and testing of hoisting cranes.

10. (a) Explain the safety in Demolition work.

Or

- (b) Write short notes on:
- (i) Pre survey inspection
 - (ii) Site supervision
 - (iii) Safe clearance zone.

| |
|--------|
| C-1347 |
|--------|

| |
|-----------|
| Sub. Code |
|-----------|

| |
|-------|
| 21514 |
|-------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non-Semester

Fire and Industrial Safety Management

ELECTRICAL SAFETY

(Upto 2015 Batch)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define First Aid.
2. Define Static Electricity.
3. Define FRLS Insulation.
4. Define Preventive Maintenance.
5. Define Hazardous zone.

Part B

(5 × 12 = 60)

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

6. (a) Explain Indian Electricity acts and Rules in detail.

Or

- (b) Explain the International standards on Electrical safety.

7. (a) Explain about human safety in the use of Electricity.

Or

- (b) Explain Earth Pit Maintenance in detail.

8. (a) Explain Grounding in detail.

Or

- (b) Explain the PPE's used in Electrical safety.

9. (a) Explain LOTO in detail.

Or

- (b) Write short notes on :

- (i) Discharge rod and Earthing.
- (ii) Cabling and Joints.

10. (a) Explain safety in the use of portable electrical tools.

Or

- (b) Explain Barriers and Isolaters.
-

| |
|--------|
| C-1348 |
|--------|

| |
|-----------|
| Sub. Code |
|-----------|

| |
|-------|
| 21515 |
|-------|

**CERTIFICATE COURSE EXAMINATION,
NOVEMBER 2019**

Non-Semester

Fire and Industrial Safety Management

**SAFETY EQUIPMENTS AND PERSONAL PROTECTIVE
EQUIPMENTS**

(Upto 2015 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. Define Safety Equipment.
2. What is a Dozy meter?
3. What are the types of Detector?
4. What are the Types PPE?
5. List out the parts of PFAS.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain in details about PPT and Safety Equipment.

Or

- (b) Write short notes on:
 - (i) Storage conditions of PPE
 - (ii) Maintenance of PPE and Safety Equipment.

7. (a) Explain ELCB in detail.

Or

(b) Write Short notes on:

- (i) Emergency shower and Eye washer
- (ii) Winch Tripod
- (iii) Ventilator and Survey Meter.

8. (a) Explain Hydrant and Monitor.

Or

(b) Write Short Notes on:

- (i) Fire Alarm
- (ii) Fire Balls
- (iii) Nozzles
- (iv) Sprinklers.

9. (a) Explain in detail about Eye and Ear Protection.

Or

(b) Explain Air purifier type PPE.

10. (a) Explain safety Harness with a neat sketch.

Or

(b) Explain Active and passive fire Protection.
