

<b>CP-6458</b>
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<b>Sub. Code</b>
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<b>11</b>
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**CERTIFICATE COURSE EXAMINATION,  
NOVEMBER 2015**

**Fire and Industrial Safety Management**

**SAFETY CONCEPTS**

Time : 3 Hours

Maximum : 75 Marks

**Section A**

(5 × 3 = 15)

Answer **all** questions.

1. Define Incident Recall Technique. Why it is necessary?
2. List any three role of Safety Committee.
3. Distinguish between frequency rate and severity rate.
4. How the government agencies serve in Safety training?
5. Define Safety audit.

**Section B**

(5 × 12 = 60)

Answer **all** questions.

6. (a) Write short notes about :
  - (i) Budgeting for safety
  - (ii) Safety promotion
  - (iii) Safety committee.

Or

- (b) How do you plan for safety and list out the benefits of it?

7. (a) Differentiate reportable and non-reportable accidents. Explain with an example.

Or

- (b) What are the records to be maintained for the accidents?

8. (a) Explain about Incident rate and Accident rate.

Or

- (b) What are the procedures involved in calculation of accident indices?

9. (a) How the private agencies involved in Safety Training?

Or

- (b) Explain the Training methods available.

10. (a) How the safety audit and inspection are implemented?

Or

- (b) Explain about Unsafe acts of workers and unsafe conditions.

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**CERTIFICATE COURSE EXAMINATION,  
NOVEMBER 2015**

**Fire and Industrial Safety Management**

**FIRE PREVENTION AND CONTROL**

Time : 3 Hours

Maximum : 75 Marks

**Section A**

(5 × 3 = 15)

Answer **all** questions.

1. Define Auto ignition.
2. Define Fire triangle.
3. List out the need for halon replacement.
4. Distinguish between exists and egress.
5. What are the principles of explosion?

**Section B**

(5 × 12 = 60)

Answer **all** questions.

6. (a) Write about boiling liquid expanding vapor explosion and explain with a case study.

Or

- (b) Explain the theory of combustion and explosion.

7. (a) With neat diagram write about the working principles of types of fire extinguishers.

Or

- (b) Write short notes on :
- (i) Fire watches
  - (ii) Fire alarms and sirens.

8. (a) (i) Explain about Smoke venting.  
(ii) Write the working principle of portable extinguishers.

Or

- (b) Briefly explain the suppression system.

9. (a) Write about fire safety requirements for high rise buildings.

Or

- (b) Explain about Snookers. What are the uses of it?

10. (a) Give a brief description about Indian Explosive Act and rules.

Or

- (b) Briefly explain about the generation of inert gases.

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**CERTIFICATE COURSE EXAMINATION,  
NOVEMBER 2015**

**Fire and Industrial Safety Management**

**CONSTRUCTIONAL SAFETY**

Time : 3 Hours

Maximum : 75 Marks

**Section A**

(5 × 3 = 15)

Answer **all** questions.

1. What is work permit?
2. What is a blasting?
3. Write short notes on safety monitoring system.
4. In which conditions a scaffold cannot be erected.
5. What is a tag system?

**Section B**

(5 × 12 = 60)

Answer **all** questions.

6. (a) Discuss about causes of fatal accidents in construction.

Or

- (b) Discuss about the safety education and training in construction safety.

7. (a) (i) In what circumstances a confined space work permit can be used?  
(ii) Who is a confined space attendant?  
(iii) What are the hazards in a confined space?  
(iv) What are the duties of a confined space attendant?

Or

- (b) (i) Write about fragile roof works.  
(ii) Write about scaffold inspection checklist.
8. (a) Write about manual handling scaffolding and use of grinding tools.

Or

- (b) Explain the fire hazards and preventing methods.
9. (a) List out the 20 hazards in constructional industry with short notes.

Or

- (b) Write notes on :
- (i) Excavators  
(ii) Dozers  
(iii) Loaders
10. (a) List and discuss about pre blast and post blast inspection.

Or

- (b) What are the requirements for safe work platforms?

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**CERTIFICATE COURSE EXAMINATION,  
NOVEMBER 2015**

**Fire and Industrial Safety Management**

**ELECTRICAL SAFETY**

Time : 3 Hours

Maximum : 75 Marks

**Section A**

(5 × 3 = 15)

Answer **all** questions.

1. Write and explain the laws which indicate the direction of included EMF.
2. What is ionization?
3. What is the use of low voltage?
4. What is meant by under voltage protection? and which device is used for it.
5. Define temperature classification.

**Section B**

(5 × 12 = 60)

Answer **all** questions.

6. (a) Write any 12 points of precautions necessary for electrical work.

Or

- (b) Write briefly about Indian Electricity Act.

7. (a) Explain about clearance and insulation.

Or

(b) Explain about Earthing.

8. (a) Write about ELCB.

Or

(b) Explain about over voltage relay.

9. (a) Write about permit to work.

Or

(b) Explain the role of environment in selection.

10. (a) Write about the classification of Hazardous zone.

Or

(b) Explain the electrical selection for different zones.

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**CERTIFICATE COURSE EXAMINATION,  
NOVEMBER 2015**

**Fire and Industrial Safety Management**

**SAFETY EQUIPMENTS AND PERSONAL PROTECTIVE  
EQUIPMENTS**

Time : 3 Hours

Maximum : 75 Marks

**Section A**

(5 × 3 = 15)

Answer **all** questions.

1. Define safety.
2. What is PPE and its importance?
3. In what circumstance fall protect on system to be used?
4. (a) Length of lanyard \_\_\_\_\_.  
(b) Thickness of lanyard \_\_\_\_\_.  
(c) Minimum opening of Hook \_\_\_\_\_.
5. What is the importance of tool box meeting?

**Section B**

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain in detail about selection criteria for PPE.  
Or  
(b) What are the storage conditions for PPE? State its maintenance and safety equipments of PPE.

7. (a) Discuss with details of machine guards.

Or

- (b) Explain briefly about local exhaust ventilation.

8. (a) Explain in detail about the classification of fire extinguishers with example for type of fires.

Or

- (b) (i) What is lock out / tag systems  
(ii) What is life line?  
(iii) Explain monitor, sprinkler.

9. (a) How non-respiratory classified? Explain them.

Or

- (b) Brief in detail about :

- (i) SAR  
(ii) SCUBA  
(iii) SCBA  
(iv) BA.

10. (a) Write a note on snap hook. Carabinear hook scaffold rope grab, retractable arrester.

Or

- (b) What is meant by “Rescue operations from Height explain it”.