

# P. P. SAVANI UNIVERSITY

Second Semester of B.Sc. Fire & Safety Examination

December -2022

SSFS1150-Industrial safety management

30.12.2022, Friday Time: 09:00 a.m. to 11:30 a.m. Maximum Marks: 60

## Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

## Section-I (Total Marks - 30)

### Q.1 Short Questions

[10]

#### 1.1 Objectives(10MCQ Compulsory-0.5 mark each)

[05]

##### 1.1a Purpose of LOTO

- A Isolation of electrical energy
- B Improve productivity
- C Save money
- D None

##### 1.1b If you discover an accident on the job site

- A Call workers
- B Go to the injured person to help
- C Inform the emergency response team
- D Fill the necessary document

##### 1.1c Purpose of cartridge type respirator

- A Reduce the concentration of ppm in the air
- B Provide supplied oxygen
- C Both
- D None

##### 1.1d Industrial safety management is a branch concern with \_\_\_\_ hazards

- A Reducing
- B Controlling
- C Eliminating
- D All of this

##### 1.1e Indirect cost of accident

- A Treatment expenses
- B Loss of time
- C Compensation
- D None



**1.1f** Which is the following is environmental hazard

- A Extreme temperature
- B Falls
- C electricity
- D All of this

**1.1g** Checklist for job safety analysis

- A Man, machine, tools
- B Machine, man ,tools
- C Work area ,material, machine tools
- D None

**1.1h** Which color is used to indicate the prohibition sign and danger alarm?

- A Red
- B yellow
- C Green
- D Blue

**1.1i** Which color is used to indicate the first aid sign

- A Red
- B Green
- C yellow
- D pink

**1.1j** What are the hazards in industrial site?

- A Cutting & crushing
- B Slip-trip
- C Electric shock
- D All above

**1.2 Answer the Following: (Definition-1 mark each )**

[05]

**1.2a** Manual hazard

**1.2b** Accident

**1.2c** MSD

**1.2d** Risk

**1.2e** Danger

**Q.2 Short Notes (Attempt any two-3 mark each)**

[06]

**A** Write down manual handling hazards.

**B** What are benefits of industrial safety management.

**C** Define the ways to minimize manual handling hazards.

**Q.3 Explain in detail (Attempt any two-7 mark each)**

[14]

**A** Explain safety in fertilizer industries.

**B** Explain safety in cement industries.

**C** Explain safety in textile industries.





**Section-II (Total Marks - 30)**

- Q.1 Short Questions** [10]
- 1.1 Objectives(10MCQ Compulsory-0.5 mark each)** [05]
- 1.1a** Which of the following is the cause of electric fire?
- A Open doors
  - B Electric shock circuit
  - C Loose connection
  - D None of this
- 1.1b** Benefits of prevent accident
- A Improve productivity
  - B Reduce scrape
  - C both
  - D None of this
- 1.1c** Purpose of electrical isolation
- A Improve productivity
  - B Isolate energy
  - C Stop work
  - D None of this
- 1.1d** Purpose of cardiopulmonary resuscitation
- A Recover & Maintain body oxygen & blood circulation
  - B Stabilized body temperature
  - C Both
  - D None of this
- 1.1e** Common symptoms of heart attack
- A Chest pain
  - B Spine pain
  - C Stomach pain
  - D headache
- 1.1f** Heat stress indicate
- A Hot and dry skin
  - B vomiting
  - C Stomach pain
  - D None of this
- 1.1g** Electric shock on human body depends upon
- A Line voltage
  - B Line current
  - C Amount of Current flowing through the body
  - D None of this



1.1h Which of the following Ladder is not safest of electrical work?

- A wooden
- B fiber
- C Aluminum
- D None of this

1.1i Which of the following gloves better grip & protection from electrical shock

- A fabric
- B rubber
- C leather
- D aluminum

1.1j LOTO stands for

- A Lock out tag out
- B Lock out and throw out
- C Both
- D None of this

1.2 Answer the Following: (Definition-1 mark each) [05]

1.2a Accident

1.2b Electrical safety

1.2c Conductor

1.2d Insulator

1.2e Transport safety

Q.2 Short Notes (Attempt any two-3 mark each) [06]

A Write down the advantage of industrial safety management.

B Write down the need & Importance of electrical safety.

C Explain about Earthing and short circuiting.

Q.3 Explain in detail (Attempt any two-7 mark each) [14]

A Explain the Principles and measurement of electricity

B Describe slip, trip and fall hazard.

C Write the factors that increase risk of a road traffic incidents.