

# P. P. SAVANI UNIVERSITY

First Semester of Diploma Fire & Safety Examination  
December-2022

SSDFS1010- Fire Teach and Design

05.12.2022, Monday 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 Use of class a type extinguisher

- A Solid combustible such as paper, wood
- B Electrical equipment's
- C Both
- D None of this

##### 1.1b What are the three factors that cause fire?

- A Fuel, heat, oxygen
- B Oxygen, fuel, nitrogen
- C Both
- D None of this

##### 1.1c Color band on carbon dioxide

- A Red
- B blue
- C White
- D black

##### 1.1d Which type of extinguisher not used in case of electrical fire?

- A Halon
- B Co2
- C Foam
- D DCP

##### 1.1e Which class of fire involves in electrical fire?

- A Class a
- B Class d
- C Class b
- D Class c



**1.1f** Which type of fire extinguisher used for liquid fire?

- A Class b
- B Class a
- C Class d
- D Class c

**1.1g** Which statement is incorrect about water extinguisher?

- A Used in class b fires
- B Used in class a fire
- C Both
- D None of this

**1.1h** Which classes of fires are caused by flammable liquids such as petrol?

- A Class a
- B Class b
- C Both
- D None of this

**1.1i** Which of the following is not caused by electrical fire?

- A Open door
- B Short circuit
- C Both
- D None of this

**1.1j** What is the color for portable water type fire extinguisher

- A Red
- B yellow
- C Blue
- D None of this

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

**[05]**

**1.2a** Factory act 1948

**1.2b** Machine guard

**1.2c** Safety

**1.2d** Suction hose

**1.2e** Delivery hose

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

**[06]**

**A** Write about Factory act 1948 and Fencing of machinery Section 21.

**B** Write down Duties of operator while working on machine.

**C** Elaborate machine guarding & its types Machine guarding.

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

**[14]**

**A** Explain the need of safety and Various types of safety.

**B** Explain hose and hose fittings.

**C** Explain Care about hose and Dry for hose.





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

**Q.1 Short Questions**

**[10]**

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

**[05]**

**1.1a** DCP such as BC or ABC extinguisher should not be used on fire

- A Inflammable gas
- B Inflammable liquid
- C Combustible solid
- D Combustible metal

**1.1b** Flammable liquid having flash point 23 degree C And above but below 63 degree C

- A Class a
- B Class b
- C Class c
- D None of this

**1.1c** Chemical fuels are

- A Gaseous,liquid,solid
- B Only liquid
- C Both
- D None of this

**1.1d** Fire wind caused by

- A Fire depleting from atmosphere
- B Not receive oxygen from atmosphere
- C both
- D None of this

**1.1e** Every extinguisher installed in premises shall be

- A - Hydraulically pressure tested
- B Non test required
- C Both
- D None of this

**1.1f** The extinguisher should tested

- A 6 month
- B 3 month
- C both
- D None of this



**1.1g** Hose are used to carry fluids through

- A air
- B water
- C Both
- D None of this

**1.1h** Fire hydrant pump system is also known as

- A Fire pump
- B Hot pump
- C both
- D None of this

**1.1i** Heat of reaction measured by

- A calorimeter
- B hydrometer
- C both
- D None of this

**1.1j** Mechanical foam generator are used with

- A Foam making branch
- B Any branch
- C both
- D None of this

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

[05]

**1.2a** Fire

**1.2b** Fire extinguisher

**1.2c** Sprinkler

**1.2d** Discipline

**1.2e** Hydrant system

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

[06]

**A** Define Fire Extinguisher and write down classification of fire.

**B** Explain any two type extinguisher.

**C** Write down advantage and disadvantage of fire extinguisher.

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

[14]

**A** Explain the Role of discipline and Purpose of discipline.

**B** Explain fixed firefighting systems in brief.

**C** Write down Purpose of award & penalties and Types of award.