

P. P. SAVANI UNIVERSITY

Sixth Semester of B.Sc. fire and safety Examination January -2023

SSFS3110-Fire safety design

10.1.2023, Tuesday

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

1.1 Objectives(10MCQ Compulsory-0.5 mark each)

[10]

1.1a Use of class a type extinguisher

[05]

- 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 TAC

1.2b NFPA

1.2c IS

1.2d BIS

1.2e Sprinkler

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

[06]

A Write down Types of sprinkler system.

B Explain NFPA 13

C Write down sprinkler types of operation.

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

[14]

A Explain the types of sprinkler layout.

B Explain component sprinkler system and types of sprinkler head

C Explain detection and warning and emergency lighting system.

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 Define asbestosis?
- A Inhaling of asbestos dust
 - B Inhaling of iron dust
 - C Both
 - D None of this
- 1.1h Black lung disease is____
- A Inhaling of coal dust
 - B Inhaling of silica dust
 - C both
 - D None of this
- 1.1i When an lung tissue becomes damaged are called____
- A Lung fibrosis
 - B Brain dead
 - C paralysis
 - D None of the above
- 1.1j What cause lung fibrosis?
- A Wood and metal dust
 - B Liquid vapor
 - C Both
 - D None of the above

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

1.2a Disaster mapping

1.2b Disaster mitigation

1.2c Evacuation

1.2d Rehabilitation

1.2e Hygiene

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

A Explain disaster preparedness plan.

B Explain hygiene and sanitation.

C Explain human behavior and response in disaster.

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

A Explain predictability forecast warning.

B Explain rehabilitation.

C Explain rehabilitation as a social and economic aspect.