

P. P. SAVANI UNIVERSITY

First Semester of Diploma fire & safety Examination
December-2022

SSDFS1040-Environment safety

08.12.2022, Thursday

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 Which substance give you heat and light after combustion?

- A flame
- B fuel
- C combustion
- D None of the above

1.1b Coal burn with _____

- A flame
- B Only glow
- C Both
- D None of this

1.1c Burning of coal produce

- A CO₂
- B SO₂
- C CO
- D O₂

1.1d CNG & LPG are the examples of _____ fuel

- A Solid
- B liquid
- C gas
- D They are not fuel

1.1e Combustion is a

- A Chemical process
- B Physical process
- C Biological process
- D None of this

1.1f The product of combustion are

- A carbon dioxide and water
- B Oxygen and water
- C Only carbon dioxide
- D Only oxygen

1.1g Pyrolysis is _____

- A the heating of organic substance in the absence of oxygen
- B the heating of organic substance in the presence of oxygen
- C the heating of organic substance in the absence of temperature
- D the heating of organic substance in the absence of fuel

1.1h Example of pyrolysis__

- A grilling
- B cooking
- C washing
- D pressing

1.1i Incomplete combustion of substance result_____

- A Carbon monoxide
- B oxygen
- C carbon
- D hydrogen

1.1j Carbon monoxide affect human cause

- A Lungs, throat
- B ear
- C hand
- D leg

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

[05]

1.2a Pollution

1.2b Radiation

1.2c Deforestation

1.2d Air pollution

1.2e Water pollution

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

[06]

A Explain automobile pollution hazards.

B Describe ultra violet and infra-red radiation.

C Write down about water treatment plant and sewage treatment plant.

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

[14]

A Write down hazardous waste management system.

B Explain the Methods of collection and disposal of solid wastes.

C Write down hazard due to bio processes.

Section-II (Total Marks - 30)

- Q.1 Short Questions [10]
- 1.1 Objectives(10MCQ Compulsory-0.5 mark each) [05]
- 1.1a Hydrogen sulfide gas has an odor(smell)
- A Rotten egg
 - B No smell
 - C Both
 - D None of the above
- 1.1b It is poisonous gas____
- A Hydrogen sulfide
 - B Carbon dioxide
 - C Sulphur dioxide
 - D None of the this
- 1.1c It is a toxic gas
- A Sulphur dioxide
 - B Carbon dioxide
 - C both
 - D None of this
- 1.1d Photo chemical smog is type of_____
- A Noise pollution
 - B Air pollution
 - C Land pollution
 - D Water pollution
- 1.1e Which of the gas is not greenhouse gas?
- A Nitrogen dioxide
 - B Carbon dioxide
 - C methane
 - D ozone
- 1.1f Which of the following is non-biodegradable
- A Wool
 - B Nylon
 - C Animal bones
 - D Tea leaves

1.1g Which is an environment hazard ?

- A Food poison
- B Acid rain
- C forestation
- D biogas

1.1h Physiological effect of combustion product to human

- A asphyxiation
- B burn
- C cut
- D None of this

1.1i Which of the following is Irritant smoke

- A Sulphur dioxide
- B oxygen
- C Carbon dioxide
- D None of this

1.1j Which of the following is nonirritant smoke

- A Carbon dioxide
- B Sulphur dioxide
- C Nitrogen dioxide
- D None of this

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

[05]

- 1.2a Dust monitor
- 1.2b Gas analyzer OR detector
- 1.2c Lux meter
- 1.2d pH meter
- 1.2e Gas Chromatography

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

[06]

- A Write down Control of gaseous emission by adsorption & combustion method
- B Explain Pollution control board.
- C Describe Scrubber and Bag filter.

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

[14]

- A Write down Pollution control in process industry like Cement, paper, textile.
- B Describe the Classification and properties of chemical.
- C Explain MSDS.