

# P. P. SAVANI UNIVERSITY

Fifth Semester of B.Sc. Examination  
Jan-2021

**SSFS3050-Combustion and its effect on life safety**

08.01.2021, Friday Time: 12:30 p.m. to 03:00 p.m. Maximum Marks: 60

## Section-A (Total Marks - 30)

**Q.1 Very Short Questions (attempt all questions) (10)**

**1.1 Objectives (10MCQ Compulsory-0.5 mark each) 05**

**1.1a** Which substance give heat and light after combustion

- A Flame
- B Fuel
- C Combustion
- D None of these

**1.1b** Coal burns with \_\_\_\_\_

- A Flame
- B Only glow
- C Both flame and glow
- D None of these

**1.1c** Which fuels are used for running automobiles?

- A Wood
- B Coal
- C Diesel
- D Charcoal

**1.1d** When magnesium ribbon burnt it produce

- A Magnesium hydroxide
- B Magnesium oxide
- C Magnesium chloride
- D All off the above

**1.1e** A temperature at which the substance burns is called

- A Melting
- B Boiling temperature
- C Kindling temperature
- D Evaporation

**1.1f** Which is non-renewable source of energy?

- A Natural gas
- B Wind energy
- C Mechanical energy
- D All of the above

**1.1g** Which gas helps in the process of combustion?

- A Cooking gas
- B Nitrogen gas
- C Oxygen gas
- D Producer gas

**1.1h** Burning coal in a closed room will produce

- A Nitrogen oxide
- B Carbon dioxide
- C Carbon monoxide
- D Oxygen

**1.1i** Which is non-combustibles substance?

- A Wood
- B Paper
- C Iron nails
- D Straw

1.1j	Which of the following coloured is used for radiation hazard?	
	A Red	
	B Orange	
	C Green	
	D Purple	
1.2	<b>Five Questions (Definitions-1 mark each)</b>	05
1.2a	Pyrolysis	
1.2b	Combustion	
1.2c	Health	
1.2d	Heat	
1.2e	Environment	
Q.2	<b>Short Notes (attempt any two- 3 marks each)</b>	06
A	Different between pyrolysis and combustion	
B	Effect of combustion on humans	
C	Explain about monitoring equipment	
Q.3	<b>Explain in detail (attempt any two-7 marks each)</b>	14
A	What is combustion	
B	Detail about combustion product generation from fires and industrial	
C	Effect on environment of combustion	



Section-B (Total Marks - 30)

- Q.1** Very Short Questions (attempt all questions) (10)
- 1.1** Objectives (10 MCQ Compulsory-0.5 mark each) 05
- 1.1a** Decibel (dB) is a unit used to measure
- A Light
  - B Sound
  - C Frequency
  - D None of the above
- 1.1b** The following are generally provided with limit switch to prevent motion beyond preset limit
- A Hoists
  - B Conveyor
  - C Machine tables
  - D All of the above
- 1.1c** The following are used as safety devices in machine
- A Fail safe
  - B Safety interlock
  - C Limit switches
  - D All of the above
- 1.1d** Class-A consists of fire due to
- A Wood
  - B Oil
  - C Transformer
  - D Chemical
- 1.1e** Water is used to extinguish
- A Class -A fires
  - B Class -B fires
  - C Class -C fire
  - D All of the above
- 1.1f** The following extinguisher is suitable for cotton or other textile fire
- A Water
  - B Soda acid
  - C Foam
  - D Dry chemicals
- 1.1g** \_\_\_\_\_ is best suited to extinguishing oil or flammable liquid fire.
- A Soda acid
  - B Vaporizing liquid
  - C Foam
  - D Dry chemical
- 1.1h** Which of the following is not the effect of modern agriculture?
- A Nitrate pollution
  - B Eutrophication
  - C Biomagnification
  - D Ozone depletion
- 1.1i** Production, transformation and use of energy are the major problems of:
- A Industrial activity
  - B Sustainable development
  - C Global warming
  - D Acid rain
- 1.1j** Chemical industry is not a cause of:
- A Air pollution
  - B Noise pollution
  - C Water pollution
  - D Nuclear pollution

<b>1.2</b>	<b>Five Questions (Definitions-1 mark each)</b>	<b>05</b>
<b>1.2a</b>	Hazard	
<b>1.2b</b>	Air	
<b>1.2c</b>	Burn	
<b>1.2d</b>	Fire	
<b>1.2e</b>	Injury	
<b>Q.2</b>	<b>Short Notes (attempt any two- 3 marks each)</b>	<b>06</b>
<b>A</b>	Effect on fire fighter and victims of fire	
<b>B</b>	Discusses about combustion	
<b>C</b>	What is pyrolysis	
<b>Q.3</b>	<b>Explain in detail (attempt any two-7 marks each)</b>	<b>14</b>
<b>A</b>	Effect on human of combustion	
<b>B</b>	Effect from inhalation and indirect consumption of combustion	
<b>C</b>	Explain in detail combustion hazard	