

- Q.24 Differentiate between Onsite and Offsite Emergency Plan.
- Q.25 Explain the various factors affecting thermal comfort.
- Q.26 Explain principles of good illumination for ensuring safety at workplaces.
- Q.27 Explain the working of a "Cyclone separator".
- Q.28 What is Glare? Explain the undesirable effect of glare and its control measures.
- Q.29 Explain the engineering control measure to mitigate and control noise.
- Q.30 Explain the Raynaud's Syndrome.
- Q.31 Explain dilution ventilation system along with example.
- Q.32 Write a note on classification of fires.

#### SECTION-D

- Note:** Long answer type questions. Attempt any three questions out of four questions. (3x10=30)
- Q.33 Write a note on various important factors to be considered during plant Layout for ensuring Industrial Safety.
- Q.34 Explain BLEVE in detail with examples.
- Q.35 Write a note explain various electrical safety devices used for earth fault protection in electrical circuits along with their working principle.
- Q.36 Write a note on various types of fire extinguishers along with their applications.

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Roll No. ....

### 1st Year / One Year Post Diploma Course In Industrial Safety Subject:- Safety Engineering - II

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The \_\_\_\_\_ is the lowest temperature at which a liquid gives off enough vapor to form an ignitable mixture.
- a) Melting point                      b) Boiling point  
c) Flash point                        d) None of the above
- Q.2 Particulate matter includes dusts, fumes, smoke, and mists that are suspended in the air. This suspension is generally known as an \_\_\_\_\_.
- a) Particulate suspension  
b) Aerosol  
c) Mist  
d) Smoke
- Q.3 Oxygen levels are maintained between \_\_\_\_\_ and \_\_\_\_\_ by volume; and ventilation is typically used to maintain permissible oxygen concentration
- a) 20.5% and 22.5%    b) 19.5% and 22%  
c) 30.5% and 32.5%    d) None of the above
- Q.4 Which of the following is standard deals with "Industrial Plant Layout-Code of safe Practice"

- a) IS 8091                      b) IS 1893  
c) IS 9081                      d) None of the above
- Q.5 The provisions related to Lighting and Ventilation as per The Factory Act, 1948 are given under Chapter dealing with  
a) Safety                      b) Health  
c) Welfare                      d) None of the above
- Q.6 The noise level measure widely used to evaluate occupational exposure because of its good correlation with hearing damage;  
a) A-weighted level"and expressed as dB(A)  
b) C-weighted level" and expressed as dB(C)  
c) B-weighted level and expressed as dB(B)  
d) All of the above
- Q.7 The reciprocal of Time period (T),  $1/T$ , is the \_\_\_\_\_ of the waveform;  
a) Frequency                      b) Wavelength  
c) Velocity                      d) None of the above
- Q.8 Which of the following is not part of "Fire Tetrahedron" Model?  
a) Fuel                      b) Oxygen  
c) Water                      d) Heat
- Q.9 Which Class of Fire involves flammable gases?  
a) Class A                      b) Class B  
c) Class C                      d) Class D
- Q.10 Trip hazards are caused by \_\_\_\_\_.  
a) Obstructions on the floor  
b) Cables across walkways  
c) Poor lighting levels  
d) All of the above

## SECTION-B

**Note:** Objective type questions. Attempt any ten questions out of twelve questions. (10x2=20)

- Q.11 Explain the importance of good lighting in an industrial workplace.
- Q.12 Specify the importance of Earthing while using electrical power.
- Q.13 Explain the term "Fire tetrahedron".
- Q.14 Give the importance of Fabric filter in the ventilation system.
- Q.15 Write a note on ill-effect of excessive vibration on worker.
- Q.16 Write a note on control of hazards due to static electricity.
- Q.17 Explain importance of housekeeping in ensuring safety at workplaces.
- Q.18 Explain Heat exhaustion.
- Q.19 Write a note on vibration isolation technique, in case of large vibrating equipment?
- Q.20 Explain the importance of escape route during Industrial Emergencies.
- Q.21 What is flame proof electrical equipment?
- Q.22 Explain the working of ESP in a thermal power plant.

## SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)

- Q.23 Write a note on importance of good housekeeping in Safety. List out major points to be included in housekeeping inspection checklist at workplaces.