

- Q.26 Explain different types of guards used in different machines.
- Q.27 Explain milling operation hazards and solution.
- Q.28 Specify the various types of grinding operations.
- Q.29 Name the different types of welding and explain any one type of welding.
- Q.30 What are the hazards in soldering operation.
- Q.31 What are the harms on long time exposure to hazardous substances during effluent treatment.
- Q.32 What is the need for the Effluent Treatment Plant?

#### SECTION-D

**Note:** Long answer type questions. Attempt any three questions out of four questions. (3x10=30)

- Q.33 Explain various foundry operations and hazards.
- Q.34 What are the manual handling slip and trip hazards in forging operation.
- Q.35 Explain various hazards and safety measures in the use of power press and press brake.
- Q.36 What are the health hazards in welding operations and explain the remedial measures.

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**1st Sem / Branch : One Year Post Diploma Course in Industrial Safety**

**Subject:- Safety in Engineering Industries**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 Alloy steels contain \_\_\_\_\_ or \_\_\_\_\_ alloying elements
- a) One or More                      b) Two or Three
- c) Four or Five                      d) Six or Seven
- Q.2 \_\_\_\_\_ is the most common composite material used in foundry operation.
- a) Ceramic compound    b) Organic compound
- c) Fibre glass                      d) Carbon
- Q.3 Induction furnace need \_\_\_\_\_ electrodes
- a) One                                  b) Two
- c) No                                      d) Four
- Q.4 Hot forging is carried out at a temperature \_\_\_\_\_ the recrystallization temperature of the metal
- a) Below                                  b) Minimum
- c) Average                              d) Above

- Q.5 In rolling mills \_\_\_\_\_ shape of rolls used in rolling process  
 a) Tapered                      b) Cylindrical  
 c) Oval                          d) As per the needs
- Q.6 The size of the planer is specified by the maximum length of the  
 a) Stroke                      b) Bed length  
 c) Cross rail                  d) Bed width
- Q.7 Universal tool and cutter grinder is used for grinding  
 a) Through feed grinding  
 b) Surface grinding  
 c) Milling cutters  
 d) Cylindrical grinding
- Q.8 \_\_\_\_\_ electrodes are used in TIG Welding  
 a) Consumable              b) Non Consumable  
 c) Brown                      d) Flex coated
- Q.9 Polishing and buffing are \_\_\_\_\_ process for smoothing a work piece's surface  
 a) Finishing                  b) Final  
 c) End                          d) Coating
- Q.10 Starting and Stopping mechanism of power press stated in which Rule/Schedule of Factory Rules, 1952.  
 a) Rule 55 Schedule-IV(4)  
 b) Rule 55 Schedule-IV(3)  
 c) Rule 55 Schedule-IV(5)  
 d) Rule 55 Schedule-IV(2)

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## SECTION-B

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

- Q.11 Define Fettling operation  
 Q.12 Define Cold forging  
 Q.13 Define Press brake  
 Q.14 Define Turning Operation  
 Q.15 Define Rolling Operation  
 Q.16 Define Surface Grinding  
 Q.17 Name the different guards used in Lath Machine  
 Q.18 Define Shot blasting.  
 Q.19 Define Heat treatment  
 Q.20 Define Effluent  
 Q.21 What are the quenching medium in heat treatment process.  
 Q.22 Define Occupational Hazards

## SECTION-C

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

- Q.23 Draw a flow chart of foundry operation  
 Q.24 Explain about working and use of cupola furnace  
 Q.25 List out various forging process and explain any two process

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