

**PGDIS DEGREE EXAMINATION DECEMBER 2025**  
(First Semester)

**Branch - DIPLOMA IN INDUSTRIAL SAFETY**

## SAFETY IN INDUSTRIES

Time: Three Hours .

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

**ALL questions carry EQUAL marks**

 $(10 \times 1 = 10)$ 

<b>Question No.</b>	<b>Question</b>	<b>K Level</b>	<b>CO</b>
1	Which colour is used for safety information and prohibition signs in industries? a) Red                                      b) Green c) Blue                                     d) Yellow	K1	CO1
2	Which method is commonly used for controlling spillage in industrial plants? a) Fire extinguisher                    b) Spill containment tray c) PPE kits                                d) First aid box	K2	CO1
3	BLEVE refers to: a) Boiling Liquid Expanding Vapour Explosion b) Basic Liquid Emergency Vapour Explosion c) Boiling Level Explosion Vapour Event d) Burst Liquid Explosion Vapour Effect	K1	CO2
4	Which type of fire extinguisher is used for electrical fires? a) Water                                    b) Foam c) CO <sub>2</sub> d) Wet chemical	K2	CO2
5	Which PPE is used to protect against noise hazards? a) Safety goggles                        b) Ear plugs c) Respirators                            d) Helmets	K1	CO3
6	Which standard covers the selection of PPE in industries? a) ISO 45001                                b) IS 9473 c) BIS 10500                                d) CPHEEO	K2	CO3
7	Which technique is used to predict human error rate? a) SOP                                        b) JSA c) THERP                                    d) TLC	K1	CO4
8	Which is a secondary effect of electrical shock? a) Burns                                      b) Muscle contraction c) Cardiac arrest                          d) Flashover injuries	K2	CO4
9	9. Which type of work requires a work permit system? a) Routine office work                    b) Hot work in confined space c) Filing of records                        d) Training sessions	K1	CO5
10	Which element of the training cycle evaluates the program's effectiveness? a) Planning                                 b) Design c) Assessment                              d) Review	K2	CO5

**SECTION - B (35 Marks)**

**Answer ALL questions**

**ALL questions carry EQUAL Marks**

(5 × 7 = 35).

Question No.	Question	K Level	CO
11.a.	Explain the importance of housekeeping and inspection in preventing industrial accidents.	K2	CO1
(OR)			
11.b.	Describe the role of plant layout and ventilation in ensuring worker safety.	K2	CO1

Cont...

12.a.	Discuss the different types of fire extinguishers and their applications in industries.	K3	CO2
(OR)			
12.b.	Explain the principles and functioning of fire detection and alarm systems.	K3	CO2
13.a.	Illustrate the selection and use of respiratory protective devices with examples.	K3	CO3
(OR)			
13.b.	Explain the need, care, and maintenance of non-respiratory PPE.	K3	CO3
14.a.	Analyse the role of on-site and off-site emergency planning in controlling industrial hazards.	K4	CO4
(OR)			
14.b.	Explain the objectives and techniques of Job Safety Analysis (JSA).	K4	CO4
15.a.	Evaluate the role of work permit systems in accident prevention.	K5	CO5
(OR)			
15.b.	Discuss the importance of employee participation in workplace safety culture.	K5	CO5

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Question No.	Question	K Level	CO
16	Analyse the advantages of machine guarding and discuss different types of machine guards.	K4	CO1
17	Assess the common causes of industrial fires and recommend preventive measures.	K5	CO2
18	Evaluate the challenges in the effective use of PPE and propose solutions for improvement.	K5	CO3
19	Design an on-site emergency plan for a chemical manufacturing unit.	K6	CO4
20	Propose a comprehensive training and employee participation strategy to improve industrial safety.	K6	CO5