

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

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

$$(10 \times 1 = 10)$$

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry **EQUAL** Marks

$$(5 \times 7 = 35)$$

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.		
	(OR)	K3	CO3
13.b.	Explain the need, care, and maintenance of non-respiratory PPE.		
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.		
	(OR)	K5	CO5
15.b.	Discuss the importance of employee participation in workplace safety culture.		

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