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

# **PGDIS DEGREE EXAMINATION MAY 2024**

(First Semester)

# Branch - PG DIPLOMA IN INDUSTRIAL SAFETY

## SAFETY IN INDUSTRIES

Time: Three Hours

Maximum: 75 Marks

 $(10 \times 1 = 10)$ 

#### SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks K Ouestion CO Module Ouestion Level No. No. What is the shape of warning signs? A. Spehrical CO1 K1 B. Rectangle 1 C. Triangle D. Square 1 Halon extinguisher filled with A. Carbon Tetrachloride (CTC) K1 CO1 2 B. Bromide C. Chlorine D. Fluro Methane How does an interlocked guard work? A. Require a key. CO<sub>2</sub> K2 B. Shut off the machine if they are opened. 3 C. Open automatically if the machine stops. D. battery operated. What type of fire suppression system that employs open 2 sprinklers connected to a piping system? A. Wet Pipe Fire Sprinkler System K1 CO1 4 B. Velocity Sprinkler System C. Dry Pipe Fire Sprinkler System D. Deluge Fire Sprinkler System Which phase of an emergency commences search and rescue A. Mitigation CO<sub>2</sub> K2 5 B. Preparedness C. Recovery D. Response 3 IS CODE 4501: 1981 is the Specification for A. Aprons CO1 K1 B. Clothing 6 C. Knee Cap D. Hands Cover What the perception level of a electrical current in the human body? A. Milliamperes CO1 K1 7 B. 5 Milliamperes C. 6 Milliamperes D. 10 Milliamperes Based on collecting information on hazards, nearmisses, un safe conditions, unsafe actions.

A. SPO

B. IRT C. SPA D. TCL

8

Cont...

CO<sub>2</sub>

K2

	1			Cont
5	9	What is the significance of work permit system?  A. It simplifies maintenance procedures.  B. It ensures efficient work scheduling.  C. It reduces the need for safety inspections.  D. It provides a legal record of work activities.	K1	CO1
	10	Choose the primary purpose of a "permission to test" in a work permit system?  A. To assess employee knowledge and skills.  B. To verify the availability of spare parts.  C. To confirm that the repaired machine functions correctly.  D.To grant access to restricted work areas.	K1	CO1

## SECTION - B (35 Marks)

Answer ALL questions

		ALL questions carry EQUAL Marks (5 ×	7 = 35)	
Module No.	Question No.	Question	K Level	СО
	11.a.	Discuss the employees contribution to maintaining a industrial safety through good housekeeping.	K5	
1	OR			CO4
	11.b.	Elaborate the procedures should be in place to ensure the safe handling and disposal of hazardous trade wastes.		
	12.a.	List out the advantages and limitations of water-based firefighting installations in industries.		
2	OR			CO4
	12.b.	Analyze the purpose and applications of water spray systems in fire protection.	K4	
	13.a.	Summarize the relevant standards and regulations that govern the use of PPE in industries.		
3	° OR			CO3
	13.b.	Outline the instructions and training required for using breathing apparatus safely and effectively.	K2	
4	14.a.	Describe the concepts of Damage Control and Total Loss Control (TLC) in the context of accident prevention and response.		
7	OR			CO3
	14.b.	Develop the primary and secondary electrical shocks, their severity, and methods for prevention.	K3	7
5	15.a.	Interpret the root causes of accidents related to maintenance in industrial settings.		CO3
3	15.b.	OR Outline the elements of training cycle.	K2	

# SECTION -C (30 Marks) Answer ANY THREE questions

ALL questions carry EQUAL Marks  $(3 \times 10 = 30)$ Module Question Question K Level CO No. No. Describe the various types of machine guarding 1 16 K3 CO3 methods. Discuss strategies for preventing or mitigating BLEVEs in industrial situations. 2 17 K6 CO4 Explain the specific hazards where the type of non-3 18 K5 CO5 respiratory PPE is necessary. Explain the THERP contribution to overall safety 4 19 K5 CO<sub>5</sub> management and risk reduction in high-risk industries. List the key objective and benefits of implementing 5 20 K4 CO4 work permit system in industrial environments.

2-2-7

END