## PSG COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

### **PGDIS DEGREE EXAMINATION MAY 2024**

(Second Semester)

# Branch - PG DIPLOMA IN INDUSTRIAL SAFETY

# MAJOR ELECTIVE COURSE -II: INDUSTRIAL HYGIENE AND OCCUPATIONAL HEALTH

Time: Three Hours

Maximum: 75 Marks

#### SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks $(10 \times 1 = 10)$								
Module No.	Question No.		K Level	со				
1	1	Reactivity, flammability, health are of chemicals.  a) Hazard categories b) Chemical properties c) Physical properties d) Nature of chemicals	K1	CO1				
	2	A chemical's safe concentration in workplace air where most workers can be exposed without harmful effects is known as:  a) Occupational exposure b) Route of exposure c) Threshold limit value d) Both b and c.	K2	CO1				
2	3	Which of the following colour code is used for radiation hazard?  a) Yellow b) Purple c) Orange d) Red	K1	CO2				
	4	The intensity needed to produce an audible sound varies with a) Frequency b) Noise c) Tone d) Amplitude	K2	CO2				
3	5	What two factors determine risk when dealing with a chemical hazard in the workplace?  a) The volatility of chemicals and age of worker  b) Reactivity of chemical and equipment speed c) Toxicity of chemical and duration of exposure d) Reactivity nature and intensity of exposure	Ki	CO3				
	6	The following control measure is recommended for ensuring industrial hygiene is	K2	CO3				
4	7	Which type of filter is commonly used in Biosafety cabinet to capture and remove airborne particles?  a) Carbon filter  b) Electrostatic filter  c) Glass fibre filter  d) HEPA filter	K1	CO4				
	8	Carpal tunnel syndrome is caused by the compression of  a) The median nerve b) The radial nerve c) The ulnar nerve d) The femoral nerve	K2	CO4				
5	9	Which of the following is not an occupational disease?  a) Pneumoconiosis b) Botulism c) Silicosis d) Asbestosis	K1	CO5				
	10	Cardiopulmonary Resuscitation is a) An emergency lifesaving procedure performed when a person's heart stops beating b) An administrative procedure used to record medical procedures on a person c) Used to assess a patient's medical condition d) A way of bringing person's blood pressure down	K2	CO5				

### SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks $(5 \times 7 = 35)$							
Module No.	Q. No.	Question	K Level	со			
	11.a.	Classify the health hazards with example.	In a	1 8			
1	(OR)			CO1			
	11.b.	Summarize the biochemical action of toxic substance.					
2	12.a.	Identify suitable control measures for radiation exposure.					
	(OR)			CO2			
	12.b.	Write about the process of organizing the noise survey.					
3	13.a.	What is the process for planning a personal exposure monitoring to assess the chemical hazard in the workplace?					
	(OR)			CO2			
	13.b.	How we can make use of substitution and process change help us to achieve industrial hygiene?					
4	14.a.	Examine the ergonomic hazards and its impact on productivity.					
		(OR)		CO3			
	14.b.	Evaluate the role of biological safety cabinet in biohazard control.					
5	15.a.	Compare pre-employment and post-employment medical examinations.					
	(OR)			CO5			
	15.b.	Analyze the significance of vital function tests.					

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

ALL questions carry EQUAL Marks

 $(3 \times 10 = 30)$ 

Module No.	Question No.	Question	K Level	со
1	16	Analyze the type and degrees of toxic effects.	K4	CO1
2	17	Compare the ionizing and non-ionizing radiation.	K4	CO2
3	18	Examine the evaluation and control of chemical hazards.	K4	CO3
4	19	Inspect the work related musculoskeletal disorders.	K4	CO4
5	20	Investigate the causes and impact of occupational related pneumoconiosis.	K4	CO5