

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 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	TLV stands for (i) Total Load Value (ii) Threshold Limit Value (iii) Toxic Level Variation (iv) Time Limit Volume	K1	CO1
	2	IDLH refers to exposure that is (i) Chronic and mild (ii) Immediately dangerous to life or health (iii) Safe for short duration (iv) Environment friendly	K2	CO1
2	3	The instrument used for frequency analysis of sound is (i) Sound level meter (ii) Dosimeter (iii) Octave band analyser (iv) Audiometer	K1	CO2
	4	Vibration exposure mainly affects (i) Digestive system (ii) Musculoskeletal and nervous system (iii) Respiratory system (iv) Visual system	K2	CO2
3	5	Which of the following is an aerosol? (i) Smoke (ii) Vapour (iii) Gas (iv) Mist	K1	CO3
	6	Air sampling is carried out mainly to determine (i) Noise levels (ii) Heat stress (iii) Chemical concentration (iv) Illumination	K2	CO3
4	7	Biological safety cabinets are mainly used for controlling (i) Chemical hazards (ii) Physical hazards (iii) Biohazards (iv) Ergonomic hazards	K1	CO4
	8	Carpal Tunnel Syndrome is related to (i) Respiratory disorder (ii) Ergonomic hazard (iii) Chemical exposure (iv) Noise exposure	K2	CO4
5	9	Silicosis is caused due to exposure to (i) Asbestos (ii) Coal dust (iii) Silica dust (iv) Cotton dust	K1	CO5
	10	Audiometric tests are used to assess (i) Lung capacity (ii) Visual acuity (iii) Hearing ability (iv) Cardiac health	K2	CO5

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SECTION - B (35 Marks)
 Answer ALL questions
 ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain routes of entry of toxic substances into the human body.	K2	CO1
		(OR)		
	11.b.	Define the terms TLV, STEL, IDLH and LD ₅₀ with suitable examples.		
2	12.a.	Elaborate the effects of noise on human health and methods of control.	K3	CO2
		(OR)		
	12.b.	Discuss heat stress indices and control measures in hot environments.		
3	13.a.	Describe air sampling strategies and personal exposure monitoring of chemical hazards.	K4	CO3
		(OR)		
	13.b.	Explain industrial hygiene control methods for chemical hazards.		
4	14.a.	Evaluate the classification of biological hazards in industrial settings and assess the effectiveness of biohazard control programs in preventing occupational infections.	K4	CO4
		(OR)		
	14.b.	Design an ergonomic intervention program to prevent work-related musculoskeletal disorders, using suitable workplace examples.		
5	15.a.	Evaluate the role of pre-employment and post-employment medical examinations in maintaining occupational health and preventing work-related diseases.	K4	CO5
		(OR)		
	15.b.	Develop a neat prevention strategy for occupational diseases by integrating primary, secondary, and tertiary levels of prevention.		

SECTION -C (30 Marks)
 Answer ANY THREE questions
 ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the concept of occupational health hazards and classify health hazards. Illustrate the basic principles of physiology of work.	K3	CO1
2	17	Demonstrate how noise surveys and hearing conservation programs are applied in industries. Illustrate the application of control measures for vibration hazards.	K3	CO2
3	18	Explain dose-response relationship, according to the deprets of exposés.	K3	CO3
4	19	Evaluate biological hazards and ergonomic hazards in workplaces with suitable examples and justify the effectiveness of appropriate control measures.	K4	CO4
5	20	Design a comprehensive occupational health prevention program to control silicosis, asbestosis, lead toxicity, and gas poisoning in industries.	K5	CO5

Z-Z-Z

END