

1st Year/One Year Post Diploma in Industrial Safety**Branch: Industrial Safety****Subject Name: Industrial Hygiene and Occupational Health****Time Allowed : 3 Hrs.****MM: 100****Section –A****Note: Multiple Choice questions. All questions are compulsory.****10x1=10**

- Q.01 Which of the following is NOT a factor considered in assessing heat stress in industrial environments?
- a) Temperature
 - b) Humidity
 - c) Noise levels
 - d) Air velocity
- Q.02 ACGIH full form is;
- a) American Consortium of Governmental Industrial Hygienists
 - b) American Conference of Governmental Industrial Hygienists
 - c) American Compendium of Governmental Industrial Hygienists
 - d) American Collection of Governmental Industrial Hygienists
- Q.03 What is the progressive form of silicosis that occurs after prolonged exposure to silica dust?
- a) Acute silicosis
 - b) Chronic silicosis
 - c) Accelerated silicosis
 - d) Subacute silicosis
- Q.04 What is the most effective way to prevent lead exposure in the workplace?
- a) Providing regular medical check-ups for employees
 - b) Implementing engineering controls to reduce lead dust
 - c) Encouraging handwashing after handling lead-containing materials
 - d) Offering nutritional supplements to workers
- Q.05 Heat cramps often affect which part of the body?
- a) Arms
 - b) Chest
 - c) Abdomen
 - d) Head
- Q.06 Which of the following occupations is at a higher risk for developing Repetitive Strain Injury?
- a) Office workers who use computers extensively
 - b) Construction workers who engage in heavy lifting
 - c) Retail workers who stand for long periods
 - d) Healthcare workers who provide patient care
- Q.07 What are the 4 basic principles of industrial hygiene?
- a) Anticipation, Recognition, Evaluation, Control
 - b) Anticipation, Recollection, Evaluation, Control
 - c) Anticipation, Recognition, Evaluation, Command
 - d) Anticipation, Recognition, Estimation, Control
- Q.08 What is the importance of ergonomics in the workplace?
- a) It increases employee turnover rates
 - b) It improves employee morale and productivity
 - c) It reduces the need for safety regulations
 - d) It eliminates the need for training programs

- Q.09 The following subject(s) is (are) related to 'Ergonomics'
- Anthropology
 - Physiology
 - Psychology
 - All of the above
- Q. 10 Which of the following best describes black lung disease?
- A respiratory condition caused by exposure to asbestos fibers
 - A lung disease caused by inhalation of coal dust
 - A form of lung cancer associated with tobacco smoking
 - A bacterial infection transmitted through contaminated air

Section-B

Note: Objective type questions. All questions are compulsory.

10x1=10

- Q.11 Local Exhaust or Extract Ventilation is applied at the release points of contaminants (dust, gas, fumes, particles etc.) to reduce their concentration in the workroom below TLVs.
- True
 - False
- Q.12 _____ component of a local exhaust ventilation system captures contaminants directly at their source.
- Q.13 Biological sampling in industrial hygiene involves the collection and analysis of _____ from workers to assess their exposure to various workplace hazards.
- Q.14 Fumes and mists are both aerosols, which are suspensions of fine solid or liquid particles in air.
- True
 - False
- Q.15 Ionizing and non-ionizing radiation differ primarily in their ability to _____ atoms and molecules.
- Q.16 Under Sections 89 and 90 above, the _____ Schedule gives a list of Notifiable (occupational) Diseases.
- Q.17 Thermal radiation is a form of electromagnetic radiation emitted by objects due to their temperature.
- True
 - False
- Q.18 Work physiology, also known as occupational physiology or occupational biomechanics, is a branch of physiology that focuses on the study of _____ to occupational activities and environments.
- Q.19 Heat Stress is the burden or load of heat that must be dissipated if the body is to remain in thermal equilibrium and is represented by the sum of metabolic heat (physical work) and environmental heat load.
- True
 - False
- Q.20 _____ is a physical factor which acts on human body by transmission of mechanical energy from sources of oscillation.

Section –C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen questions.

12x5=60

- Occupational Cancer
- Non respiratory PPE
- Toxic ingestion
- No Detectable Risk.
- Continued Industrial Hygiene Evaluations.
- Common occupational diseases
- Noise control strategies.
- Pneumoconiosis.
- Stress management
- Thermal Radiation
- Musculo-skeletal disorder
- Lung function test.
- Dose response relationship

Q.34 Elaborate local systematic and chronic effects of industrial toxicology.

Q.35 Elaborate musculo skeletal disorders.

Section-D

Note: Long answer questions. Attempt any two questions out of three questions.

2x10=20

Q.36 Explain the significance of physical hazards in the context of industrial hygiene, outlining their potential effects on worker health and safety. Discuss the role of industrial hygiene in identifying, evaluating, and controlling physical hazards in the workplace, emphasizing key principles and strategies for mitigating risks and promoting a safe work environment.

Q.37 Describe the principles of industrial hygiene sampling and monitoring techniques for assessing airborne contaminants, noise levels, and physical hazards in the workplace.

Q.38 Discuss the challenges associated with managing occupational exposure to hazardous chemicals and propose strategies for chemical hazard communication and control.?