

One Year Post Diploma in Industrial Safety
Branch: Industrial Safety
Subject: Industrial Hygiene & Occupational Health

Time : 3 Hrs.

MM: 100

Section -A

Note: Multiple Choice questions. All questions are compulsory.

10x1=10

Q.1 Asbestosis is;

- a) chronic liver disease
- b) chronic lung disease
- c) chronic blood disease
- d) chronic skin disease

Q.2 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.3 The median lethal dose (or LD50) is defined as;

- a) the dose of a test substance that is lethal for 500% of the animals in a dose group.
- b) the dose of a test substance that is lethal for 0.5% of the animals in a dose group.
- c) the dose of a test substance that is lethal for 05% of the animals in a dose group.
- d) the dose of a test substance that is lethal for 50% of the animals in a dose group.

Q.4 Lead poisoning can cause which of the following disease;

- a) kidney disease
- b) Crohn's disease
- c) rheumatoid arthritis
- d) anemia

Q.5 Sharp pains in the muscles that may occur alone or be combined with one of the other heat stress disorders is known as;

- a) Frozen shoulder
- b) Heat Cramps
- c) Cervical
- d) Heat exhaustion

Q.6 The term used to describe the pain felt in muscles, nerves and tendons caused by repetitive movement and overuse is called as;

- a) Repetitive strain injury (RSI)
- b) Reproductive strain injury (RSI)
- c) Reduced strain injury (RSI)
- d) None of the above

Q.7 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. 8 Ergonomics principle suggests that

- a) Monitoring displays should be placed outside peripheral limitations
- b) Glow-in-the dark dials made of reflective substances are good for viewing in the nights
- c) Visual systems should be preferred over auditory systems in noisy locations
- d) All of the above

Q. 9 The following subject(s) is (are) related to 'Ergonomics'

- a) Anthropology
- b) Physiology
- c) Psychology
- d) All of the above

Q. 10 Which of the following occupational disease is also known as black lung disease?

- a) Byssinosis
- b) Pneumoconiosis
- c) Silicosis
- d) Asbestosis

Section-B

Note: Objective type questions. All questions are compulsory. $10 \times 1 = 10$

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.

- a) True
- b) False

Q.12 _____ is a device that measures the volumetric flow rate of fluid in a closed tube.

Q.13 _____ is an injury to the inner ear that's often caused by exposure to a high- decibel noise.

Q.14 An "occupational disease" is any disease contracted primarily as a result of an exposure to risk factors arising from work activity.

- a) True
- b) False

Q.15 A Time Weighted Average (TWA) is the average exposure over a specified period, usually a nominal _____ hours. (Ans – Eight)

Q.16 Under Sections 89 and 90 above, the _____ Schedule gives a list of Notifiable (occupational) Diseases.

Q.17 LC50 is the lethal concentration required to kill 75% of the population.

- a) True
- b) False

Q.18 Non-ionizing radiation refers to any type of _____radiation that does not carry enough energy per quantum to ionize atoms or molecules.

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.

- a) True
- b) 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. $12 \times 5 = 60$

Q.21 Asphyxiant.

Q.22 Give your thoughts on carcinogen entry into humans due to industrial activities.

Q.23 TWA Exposure.

Q.24 No Detectable Risk.

Q.25 Benefits of Continued Industrial Hygiene Evaluations.

Q.26 Discuss acclimatization in industry.

Q.27 Discuss in detail about various noise control strategies.

Q.28 Pneumoconiosis.

Q.29 Benefits of biological monitoring.

Q.30 Air purifying respirator.

Q.31 Musculo-skeletal disorder

Q.32 Lung function test.

Q.33 Strategy or air sampling.

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. $2 \times 10 = 20$

Q.36 Explore the ill effects in humans due to excess noise vibrations and radiations.

Q.37 Give a detailed report on audiometry, eye and vital functional test.

Q.38 What are the industrial hygiene procedures to control pollution?