



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

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QUALIFICATION : BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES	
QUALIFICATION CODE: 08BOHS	LEVEL: 6
COURSE: OCCUPATIONAL HEALTH AND SAFETY 2B	COURSE CODE: OHS612S
DATE: NOVEMBER 2023	SESSION: 1
DURATION: 3 HOUR	MARKS: 100

FIRST OPPORTUNITY: QUESTION PAPER

EXAMINER: *MRS MOUYELELE HAUFIKU*

MODERATOR: *MR JOSHUA HIDINWA*

INSTRUCTIONS:

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.

PERMISSIBLE MATERIALS:

1. Non-Programmable Calculator

ATTACHEMENTS

1. None

This paper consists of 5 pages including this front page

SECTION A: SHORT ANSWER QUESTIONS**[40 MARKS]****QUESTION 1****[10 MARKS]**

1.0 Define the following terms/concepts with examples

- 1.1 Chemical Time Weighted Average. [1]
- 1.2 An accident. [1]
- 1.3 Risk assessment. [1]
- 1.4 Lethal Dose50 (LD50). [1]
- 1.5 Material Safety Data Sheets (MSDS). [1]
- 1.6 Hazard elimination. [1]
- 1.7 Mutagens. [1]
- 1.8 Local effect. [1]
- 1.9 Virulence. [1]
- 1.10 Unsafe practices. [1]

QUESTION 2**[10 MARKS]**

2.0 Choose the correct answer from the alternatives given; write the question number and the correct letter representing your answer

- 2.1 Death of the liver cell is called: [1]
 - a) Cirrhosis
 - b) Hepatic necrosis
 - c) Liver cancer
 - d) Nephrotoxic
- 2.2 Chemicals that causes damage to the kidneys are called: [1]
 - a) Cirrhosis
 - b) Hepatic necrosis
 - c) Liver cancer
 - d) Nephrotoxins
- 2.3 Chemical substances which can depress the central nervous system are called: [1]
 - a) Asphyxiants and narcotics
 - b) Irritants
 - c) Anesthetics and narcotics
 - d) Carcinogens
- 2.4 This is the scarring (fibrosis) of the liver caused by long-term liver damage: [1]
 - a) Steatosis
 - b) Hepatic necrosis
 - c) Cirrhosis
 - d) Liver cancer

- 2.5 Chemicals that causes abnormalities in the unborn baby are called: [1]
- a) Mutagens
 - b) Carcinogens
 - c) Teratogens
 - d) Systematic poison
- 2.6 These chemicals effects are usually permanent and may take years to show up: [1]
- a) Chronic
 - b) Acute
 - c) Local
 - d) Systemic effect
- 2.7 An example of unsafe condition that can lead to an accident: [1]
- a) Use of improper equipment
 - b) Using inappropriate methods/procedures
 - c) Non-adherence to the proper use of Personal Protective Equipment (PPE)
 - d) Inadequate lighting
- 2.8 An example of a direct effect of an accident is: [1]
- a) Loss of life
 - b) Accident investigation costs
 - c) Compensation of victims and dependents
 - d) Replacement of incapacitated employees
- 2.9 The permanent lesion in the lungs due to extensive accumulation of dust is called: [1]
- a) Brocho constriction
 - b) Pneumoconiosis
 - c) Emphysema
 - d) Chronic brochitis
- 2.10 The rapture of the inter alveolar cell membranes because of excessive pressure build up which may be due to a restriction of the respiratory passage is called: [1]
- a) Brocho constriction
 - b) Pneumoconiosis
 - c) Emphysema
 - d) Chronic brochitis

QUESTION 3

[20 MARKS]

3.1 Interpret the following abbreviations in the context of Occupational Health and Safety in measuring chemical hazards.

[5]

3.1.1 TLV

3.1.2 TWA

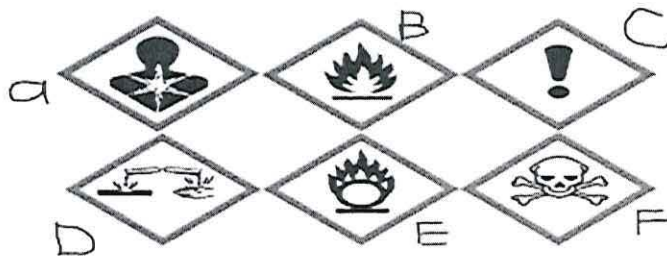
3.1.3 STEL

3.1.4 EELs

3.1.5 MAC

3.2 Label the following symbols on chemical hazards.

[6]



3.3 Explain why risk assessment is important.

[6]

3.4 Differentiate between the following three ergonomic disorders.

[3]

SECTION B: LONG ANSWER QUESTIONS**[60 MARKS]**

Please answer ALL of the questions in this section.

QUESTION 4**[20 MARKS]**

- 4.1 Discuss the SMART lifting of loads technique. [10]
- 4.2 Define ventilation. [2]
- 4.3 Briefly explain the causes of discomfort in unventilated or poorly ventilated rooms. [8]

QUESTION 5**[20 MARKS]**

- 5.1 Define Biological agents. [2]
- 5.2 Summarize how healthcare professionals can be at risk of biological hazards. [18]

QUESTION 6**[20 MARKS]**

- 6.1 Name and explain the **4 (four)** main "routes of exposure," or ways a chemical can get into the body. [8]
- 6.2 State any **5 (five)** factors that can put the person at risk of chemical exposure effects. [5]
- 6.3 Outline any **7 (seven)** Safe Disposal of Mercury on Spillage. [7]

END OF THE QUESTION PAPER