



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Faculty of Health and Applied Sciences**

DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION : BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES	
QUALIFICATION CODE: 08 BOHS	LEVEL: 5
COURSE CODE: WAS512S	COURSE NAME: WATER AND SANITATION
SESSION: NOVEMBER 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER	MRS BUHLEBENKOSI MPOFU
MODERATOR	MS CHARMAINE JANSEN

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS
NONE

THIS QUESTION PAPER CONSISTS OF 3 PAGES
(Including this front page)

SECTION A

[20 MARKS]

QUESTION 1

1.0 Define the following terms as used in Water and Sanitation:

- 1.1 Drain. [2]
- 1.2 Borehole. [2]
- 1.3 Reverse Osmosis. [2]
- 1.4 Water related disease. [2]
- 1.5 Human right. [2]

QUESTION 2

2.0 Differentiate the following terms:

- 2.1. Cold Storage and Frozen Storage. [2]
- 2.2. Ecosan Toilet and Conventional Toilet. [2]
- 2.3. Combined Sewerage and Separate Sewerage. [2]
- 2.4. Facultative Pond and Maturation Pond. [2]
- 2.5. Water borne disease and water washed disease. [2]

SECTION B

[35 MARKS]

QUESTION 3

(15 marks)

- 3.1. Identify any **five (5)** reasons why sewage is a public health concern. [5]
- 3.2. State and briefly explain any **five (5)** acceptable water quality aspects. [10]

QUESTION 4

(20 marks)

- 4.1 Elaborate briefly any **five (5)** points where manholes are required. [10]
- 4.2 The availability of water is considered as a basic human right. Explain what key elements are considered under the "Water Right". [10]

SECTION C
[45 MARKS]

QUESTION 5

5.1 Explain how you would sample water from the following water points:

- a) Tap
- b) Lake
- c) Well

[15]

5.2 Elaborate on **five (5)** ways one can treat water at home.

[10]

5.3 Discuss any **five (5)** sanitation challenges facing the country of Namibia. In your view how can these be solved.

[20]

TOTAL MARKS = 100