



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION: ENVIRONMENTAL HEALTH SCIENCES	
QUALIFICATION CODE: 08BEHS	LEVEL: 6
COURSE CODE: WSM 611S	COURSE NAME: WASTE MANAGEMENT
SESSION: JUNE 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS
<ol style="list-style-type: none">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

[10 MARKS]

- 1.0 Assess the following statements and decide whether they are **true or false**.
Write only the number of the question and next to it true for a true statement and false for a false statement next to the number of the question.
- 1.1 Public health is a factor that should be considered during the on-site storage of solid waste. (1)
- 1.2 The frequency of collection depends on the quality of solid waste. (1)
- 1.3 Plastic can be classified as clean commercial grade scrap or post-consumer scrap. (1)
- 1.4 Excessive moisture can decrease the possibility of anaerobic conditions and may lead to rotting and obnoxious odors. (1)
- 1.5 Landfill design and operation is the one of the step in the engineering process. (1)
- 1.6 Currently only eight percent of all plastic containers are recycled worldwide. (1)
- 1.7 Recyclable nonferrous metals are recovered from common household items. (1)
- 1.8 Waste minimization usually benefits the waste collector. (1)
- 1.9 The chemical environment is largely determined by the composition of the composed material. (1)
- 1.10 Recycling includes a partial solid waste disposal and reclamation process. (1)

QUESTION 2

[10 MARKS]

- 2.0 Match the term in **Column A** with the correct description/definition in **Column B**. (5)

COLUMN A	COLUMN B
2.1 Basel Convention of 1989	A. Sets powers and duties for local authorities to deal with offensive waste materials.
2.2 Local Authority Act No. 23 of 1992	B. To have lasting impact on health and environment.
2.3 Autoclaving	C. It prescribes the notification of transboundary movements of waste.
2.4 National Waste Management Principle	D. To ensure and develop policies and legislation and Conduct an Environmental Impact Assessment for the siting of landfill sites.
2.5 Ministry of Environment and Tourism	E. A process that treats medical waste with steam at a high temperature and pressure to kill pathogens.

2.6 Give the full meaning of the following abbreviations.

- A. HCF (1)
- B. IHCWM (1)
- C. POP (1)
- D. WIS (1)
- E. HCGW (1)

SECTION B (40 MARKS)

QUESTION 3

[10 MARKS]

3.0 Define the following Terms:

- 3.1 Cradle to Grave responsibility (2)
- 3.2 Litter (2)
- 3.3 Polluter Pays Principle (2)
- 3.4 Satellite site (4)

QUESTION 4

[10 MARKS]

4. Mention the aspects that need consideration in the collection and transportation of waste. (10)

QUESTION 5

[20 MARKS]

- 5.1 Illustrate by means of a table of the advantages and disadvantages of a landfill site. (10)
- 5.2 Describe the advantages and disadvantages of an open dumping site. (10)

SECTION C (40 MARKS)

QUESTION 6

[25 MARKS]

- 6.1 Discuss the goal and objectives of the National Waste Management Policy. (10)
- 6.2 Elaborate on the Integrated Waste Management as stipulated in Section 51 of Public and Environmental Health Act No. 1 of 2015. (15)

QUESTION 7

[15 MARKS]

- 7. Summarise the difference between Hazardous waste and Health care risk waste. (15)

GOOD LUCK