



**TECHNICAL UNIVERSITY OF MOMBASA**

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

**UNIVERSITY EXAMINATION FOR:**

DEGREE IN MARINE RESOURCE

BSMR 14S/YEAR3/SEMESTER 1

AES 4302: WASTE MANAGEMENT IN MARINE ENVIRONMENT

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2016**

**TIME: 2 HOURS**

**DATE:** Pick Date Select Month Pick Year

**Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt question ONE (Compulsory) and any other TWO questions.

**Circle the correct answer in section A.**

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**Question One (Compulsory) (30 marks)**

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- a) i. What are hazardous waste? (2 marks)
- ii. What are the FOUR characteristics of a hazardous waste? (4 marks)
- b) Waste can be classified in a variety of ways. State the types of waste that fall under the following classes.
  - i. State (3 marks)
  - ii. Effect (2 marks)
  - iii. Nature (2 marks)
  - iv. Components (2 marks)
  - v. Life span/longevity (2 marks)
- c) i. Discuss the FOUR ways solid waste can be categorised (4 marks)

- ii. Give FIVE reasons why waste needs to be classified and categorised (5 marks)
- d) Name the FOUR characteristics types of radiation are based on (4 marks)

**Question Two**

Highlight solid waste disposal methods in a marine environment. (20 marks)

**Question Three**

Discuss FIVE sources of wastes and each of their composition (20 marks)

**Question Four**

Discuss the ANY TWO methods of treating sludge (20 marks)

**Question Five**

Discuss the FOUR central principles of integrated waste management (20 marks)