

## **MAASAI MARA UNIVERSITY**

### REGULAR UNIVERSITY EXAMINATIONS 2018/2019 ACADEMIC YEAR SECOND YEAR SECOND SEMESTER

# SCHOOL OF TOURISM & NATURAL RESOURCE MANAGEMENT BACHELOR OF SCIENCE IN ENVIRONMENTAL STUDIES

**COURSE CODE: EBH 2214** 

**COURSE TITLE: SOLID WASTE MANAGEMENT** 

DATE: 24/4/2019 TIME: 8.30-10.30AM

#### **INSTRUCTIONS**

(i). Attempt all questions in Section A and any THREE in Section B

(ii). Marks for each question are indicated in parenthesis

This paper consists of 2 printed pages. Please turn over.

#### **SECTION A: ANSWER ALL QUESTIONS (25 MARKS)**

- 1. Explain three solid waste collection methods (6 marks)
- 2. Highlight the four combustion requirements in incineration process

(4 marks)

- 3. Define integrated solid waste management (2 marks)
- 4. Explain how the various components of landfill are designed to manage leachate (6marks)
- 5. Using wet weight method, calculate the moisture content of a solid waste sample weighing 10Kg when wet and 8Kg when dried in an oven at 105° C for 1 hour. (3 marks)
- 6. Differentiate between pyrolysis and incineration (4 marks)

#### **SECTION B: ANSWER ANY THREE QUESTIONS (45 MARKS)**

- 1. Source reduction targets waste at its source. Discuss the strategies that can be employed to achieve source reduction (15 marks)
- 2. a) What is waste generation per capita? (1 mark)
  - b) Discuss seven factors that affect waste generation rates

(14 marks)

- 3. Discuss 5 challenges faced by developing countries in solid waste management (15 marks)
- 4. Discuss the environmental impacts of mismanagement of solid wastes

(15 marks)

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