

TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR THE DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT.

DCHM 15J/YEAR3/ SEMESTER1

AES 2210: MATERIAL CONSUMPTION & WASTE MANAGEMENT

SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

Instructions to Candidates

This paper consists of **FIVE (5)** questions

Answer question ONE (COMPULSORY) and any other TWO questions.

This paper consists of two printed pages.

Question ONE

- (a) State any goals of solid waste treatment. (4 marks)
- (b) Define waste composition and state the content of sewage. (5 marks)
- (c) Briefly describe the characteristics of modern sanitary landfills (5 marks)
- (d) Outline the criteria for water quality analysis. (5 marks)
- (e) Identify the classes of medical wastes. (3 marks)
- (f) State any FOUR effects of poor waste management. (4 marks)
- (g) Identify the classes of radioactive waste. (4 marks)

Question TWO

- a) Briefly explain the following Principles of Waste Management
 - i. Waste hierarchy (2 marks)
 - ii. Polluter pays principle (2 marks)

- iii. Polluter pays principle (2 marks)
- iv. Proximity principle (2 marks)
- b) Define hazardous wastes and explain any FOUR methods used in their treatment. (7 Marks)

Question THREE

Discuss the challenges of solid waste management in Mombasa city (15 marks)

Question FOUR

Describe the treatment of sewage in a centralized treatment system. (15 marks)

Question FIVE

Discuss the following methods of waste disposal

- (a) Landfill (5 marks)
- (b) Incineration (5 marks)
- (c) Recycling (5 marks)