



UNIVERSITY OF SWAZILAND
Faculty of Health Sciences
Department of Environmental Health Science

DEGREE IN ENVIRONMENTAL HEALTH SCIENCE

RE-SIT EXAMINATION PAPER, JULY 2017

TITLE OF PAPER : SOLID WASTE MANAGEMENT
COURSE CODE : EHS 216
DURATION : 2 HOURS
MARKS : 100

INSTRUCTIONS :

- : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
- : ANSWER **ANY FOUR** QUESTIONS
- : EACH QUESTION **CARRIES 25** MARKS.
- : WRITE NEATLY & CLEARLY
- : NO PAPER SHOULD BE BROUGHT INTO OR OUT OF THE EXAMINATION ROOM.
- : BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.

RE-SIT EXAMINATION: JULY, 2017.

QUESTION 1

- i) What is solid waste from the legal perspective and from a practical perspective? (10)
- ii) List and describe the major health hazards associated with solid waste (15)

TOTAL MARKS (25)

QUESTION 2

- i) Explain the term sustainable development in relation to Solid Waste Management (5)
- ii) Sustainable development seeks to reconcile economic and environmental objectives including reduction of waste at source, reuse and recovery govern by five (5) principles. Discuss four of the principles in relation to a Sanitary Landfill. (20)

TOTAL MARKS (25)

QUESTION 3

- i) Describe, with examples, the stages of evolution of Solid Waste Management (Waste Hierarchy). (10)
- ii) Discuss the design requirements of a fully Engineered Sanitary landfill (15)

TOTAL MARKS (25)

QUESTION 4

- i) What is composting in waste management? (5)
- ii) Why is composting important? (10)
- iii) Discuss the two types of composting (10)

TOTAL MARKS (25)

QUESTION 5

As a Waste Management Consultant Company, you have been given a task of developing a comprehensive Solid Waste Management System for Manzini City Council which is interested in achieving greater recovery and re-use of its solid waste. Two of the possible alternatives are separation at home or separation at a recovery facility.

What important factors must be considered in evaluating these two alternatives? (25)