

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**RESIT/SPECIAL**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE  
IN ENVIRONMENTAL SCIENCE**

**ENSC 450: SOLID WASTE MANAGEMENT**

**STREAMS: BSC (ENSC)**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 03/02/2021**

**2.30 P.M. – 4.30 P.M.**

**INSTRUCTIONS:**

- Answer all questions in section A and any two in Section B
- Do not write on the question paper

**SECTION A (30 MARKS)**

1. Briefly explain the importance of regular door-door waste collection in sustainable waste management in urban areas. (6 marks)
2. Outline the roles of any three key actors in waste management. (6 marks)
3. With examples, differentiate between closed loop and open loop recycling. (6 marks)
4. Briefly discuss any three ways by which recycling can be achieved in households. (6 marks)
5. Incineration with or without energy recovery may not be very sustainable. Briefly discuss. (6 marks)

**SECTION B (40 MARKS)**

6. Give a detailed explanation of how a sanitary landfill can minimise impacts of solid waste on the environment. (20 marks)
7. a. Discuss ‘source separation’ as an important aspect of the sustainable waste management. (10 marks)  
b. Compare the scale of potential environmental impacts from waste management under the linear economy and under the circular economy (10 marks)
8. Discuss the different ways by which the national government can encourage waste minimisation. (20 marks)

