



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021

**FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE (ENVIRONMENTAL SCIENCE)**

ENS 344: MUNICIPAL SOLID WASTE MANAGEMENT

DATE: FRIDAY 11TH JUNE 2021

TIME: 8.00 A.M. – 10.00 A.M.

INSTRUCTIONS

Answer Question One and any other THREE

- Q.1 a) Define the terms:
- i) Solid waste (2 marks)
 - ii) Solid waste management (2 marks)
- b) Outline **four** reasons why full knowledge of the composition of waste is important in solid waste management (4 marks)
- c) Briefly explain **five** negative environmental impacts from solid waste management (5 marks)
- d) Explain the factors that should be taken into consideration in choosing the type of solid waste transportation vehicle (6 marks)
- e) Explain the distinguishing factors between aerobic and anaerobic composting (6 marks)
- Q.2 Explain operating components of the waste management systems (15 marks)
- Q.3 Critically review the advantages of adopting Integrated Solid Waste Management for County governments (15 marks)
- Q.4 a) State three methods used in thermal waste treatment (3 marks)
- b) Identify the advantages and disadvantages of thermal waste treatment (12 marks)
- Q.5 Discuss the main challenges facing solid waste management in County Governments in Kenya, outlining possible mitigation measures that can be put in place. (15 marks)