

# JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF HEALTH SCIENCES

# UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF PUBLIC HEALTH

# 4thYEAR 2<sup>ND</sup> SEMESTER 2015/2016 ACADEMIC YEAR KISII CAMPUS-PART TIME

**COURSE CODE: HPD 3122** 

COURSE TITLE: WASTE MANAGEMENT

EXAM VENUE: STREAM: (BSC )

DATE: EXAM SESSION:

TIME: 2 HOURS

### **Instructions:**

- 1. Answer Question ONE (COMPULSORY) and ANY other 2 questions
- 2. Candidates are advised not to write on the question paper.
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.

### **SECTION A**

- 1. Explain three characteristics of solid waste (3mks)
- 2. Explain three solid waste treatment and disposal (3mks)
- 3. Illustrate the design of extra disposal system in rural areas (3mks)
- 4. Explain the procedure of disposal of dead animals caused by highly infection diseases (3mks)
- 5. Explain the meaning of the following terms (3mks)
  - i. Anaerobic
  - ii. Facultative
  - iii. Maturation ponds
- 6. State any three processes involved in sewage sludge treatment (3mks)
- 7. Explain the following terms as used in waste management (3mks)
  - i. Composting
  - ii. Digesting
  - iii. Recycling
- 8. Briefly explain percolating filters (3mks)
- 9. Explain the suitability and application of stabilization ponds (3mks)
- 10. Identify the river pollution techniques (3mks)

### **SECTION B**

- 1. Discuss in details mechanism and process of industrial waste treatment (20mks)
- 2. Discuss the operation and advantages of landfills as a method of waste disposal (20mks)
- 3. Discuss in details the waste management techniques (20mks)
- 4. Discuss with examples the transmission, design and construction of excreta disposal methods (20mks)