



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**END OF SEMESTER EXAMS FOR DIPLOMA PUBLIC/ COMMUNITY HEALTH AND**  
**DEVELOPMENT**  
**YEAR 1, SEMESTER1- 2018/2019 ACADEMIC YEAR**  
**KISUMU TOWN CAMPUS**

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**COURSE CODE: HDC 2113**  
**COURSE TITLE: WASTE MANAGEMENT**  
**DATE: DEC 2018**  
**EXAM SESSION:**  
**TIME: 2 HOURS**

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**Instructions:**

- 1. Answer all the questions in Section A and ANY other 2 questions in Section B.**
- 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: (30 MARKS) Please answer all Questions.**

- 1). Define the term waste (3 Marks)
- 2). List any six sources of waste (3 Marks)
- 3). Explain the function of a *Grit chamber* in waste water Management (3 Marks)
- 4). Differentiate between *Grey water* and *Black water* in liquid waste (3 Marks)
- 5). Explain the difference between effluent and influent in sewage management (3 Marks)
- 6). Differentiate between Re-duce, Re-use and Re-cycling in waste management (3 Marks)
- 7). Define the term waste-water as used in liquid waste management (3 Marks)
- 8). Highlight any three *Solid waste disposal* options (3 Marks)
- 9). Differentiate between a landfill and crude dumping in solid waste management (3 Marks)
- 10). What are some three health problems associated with wastes (3 Marks)

**Section II : (40 Marks)- Instructions: (Answer any 2 two questions)**

- 1). Briefly describes the sewage treatment process. (20 Marks)
- 2). With the aid of a diagram, discuss how the bucket latrine system works (20 Marks)
- 3). List and explain the three different characteristics of waste water (20 Marks)

4). Giving reasons, list and explain the factors to be considered when coming up with an appropriate waste disposal facility (20 Marks)