****

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

**UNIVERSITY EXAMINATION FOR DIPLOMA COMMUNITY HEALTH AND DEVELOPMENT**

**2ND YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR**

**Main campus**

**COURSE CODE: HDC 2215**

**COURSE TITLE: Community Water Supply**

**EXAM VENUE: STREAM: (Diploma Comm Hlth & Dev)**

**DATE: EXAM SESSION:**

**TIME: 1.30 HOURS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**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) Answer all questions**

1. Define the following terminologies; (3 Marks)
2. Waste Management
3. Aeration theory
4. Extended producer responsibility
5. Describe three ways on how sludge can be treated and disposed of (3 marks)
6. State the reasons why waste water should be treated ( 3 marks)
7. List six ways in which wastes can be classified (3 marks)
8. Mention the factors that dictate the frequency of waste collection (3 marks)
9. Write short notes on recycling in waste management ( 3 marks)
10. Write short notes on waste stabilization ponds (3 marks)
11. State any three dimensions of sustainable development ( 3 marks)
12. State what waste hierarchy refers to (3 marks)
13. Explain the principles of composting ( 3 marks)

**Section B (Total 30 marks) Answer any two questions**

1. Using the aid of a diagram, discuss the role of VIP latrine as one of the conservancy systems that improves the use of environment ( 15 marks)
2. Discuss the preliminary and primary conventional stages in sewage treatment

(15 marks)

1. Discuss the physical, chemical and biological composition of waste water (15 marks)
2. Discuss the current satisfactory waste disposal options in Kenya (15 marks)