JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR DIPLOMA IN COMMUNITY HEALTH AND DEVELOPMENT

1ST YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE:	**HDC 2113**
COURSE TITLE:	**WASTE MANAGEMENT**
EXAM VENUE:	**STREAM: (Dip. Comm Health & Dev)**
DATE:	**EXAM SESSION:**
TIME:	**1.5 HOURS**

Instructions:

1. **Answer all the questions in Section 'A' and ANY other two questions in Section 'B' each contain 15 marks**

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: ANSWER ALL THE QUESTIONS IN THIS SESSION (30 MARKS)

1. Define the following terms: (3 marks)
   a. Sludge
   b. Biochemical Oxygen Demand (BOD)
   c. Percolating filters
2. Differentiate between greywater and blackwater (2 marks)
3. Name the modes of transmission (3 marks)
4. What are some of the effects of stream pollution (4 marks)
5. What are some of the things included in percolating filters (3 marks)
6. Wastewater contains a number of pollutants namely? (4 marks)
7. What are some of the things that determine how waste is handled? (3 marks)
8. What is the is the importance of wastewater management (3 marks)
9. What are the basic purposes of sewage treatment (2 marks)
10. Give some of the benefits for reusing treated sewage sludge (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS IN THIS SESSION (30 MARKS)

1. a) What does wastewater management involve (5 marks)
   b) Discuss the options involved in safe waste disposal (10 marks)

2. a) What is the impact of improper waste management? (5 marks)
   b) What are the most common techniques to remove liquid waste? (10 marks)

3. a) Discuss briefly the waste stabilization ponds (5 marks)
   b) What are the methods in waste water treatment? (10 marks)

4. a) Note down some of the designs of a VIP latrine (5 marks)
   b) Discuss the waste water treatment for small communities (10 marks)