



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
COMMUNITY HEALTH AND DEVELOPMENT/ PUBLIC HEALTH
3RD YEAR 2ND SEMESTER 2018/2019 ACADEMIC YEAR
NAIROBI CITY CAMPUS**

COURSE TITLE: COMMUNITY WATER SUPPLY AND SANITATION

COURSE CODE: HCD 3324

VENUE: 12 FLOOR ROOM 2

DATE: 17/ 12/2018

EXAM SESSION: 9AM- 11AM

TIME: 2HRS.

INSTRUCTIONS

- 1. Answer all 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 in section A, and any two in section B.

1. Define the following terms; (5 marks)
 - a) Potable water
 - b) Aquifers
 - c) Grey water
 - d) Hygiene
 - e) Improved sanitation facilities
2. Describe briefly the various natural water sources. (6 marks)
3. Briefly describe the processes involved in the hydrological cycle (5 marks)
4. Describe two barriers that are important for the development of the sanitation sector (2 marks)
5. Describe at least four requirements that need to be satisfied before a sanitation technology is selected (4 marks)
6. Write short notes on the following; (8 marks)
 - a) Conventional water treatment
 - b) Domestic water treatment

SECTION B (30 MARKS)

7. a) Discuss sources of water pollution as an issue of concern in community water supply (14 marks)
b) Briefly describe methods of preventing and controlling water pollution (6 marks)
8. Discuss four types of water associated diseases, giving examples for each category and explain methods for preventing and controlling these diseases (20 marks)
9. Discuss the following types of sanitation systems and technologies
 - a) Ventilated improved latrines (VIP) (10 marks)
 - b) Septic tank (10 marks)
10. As a Public Health Officer, you have been posted in one of rural counties in Kenya where there is chronic water shortage. During a meeting with the local authorities, they agree to fund development of water sources in the community. Describe in detail four water supply options that you will consider for the community including their advantages and disadvantages. (20 marks)

