



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN COMMUNITY
HEALTH AND DEVELOPMENT
3RD YEAR 2ND SEMESTER 2019/2020 ACADEMIC YEAR
KISUMU CAMPUS

COURSE CODE: HCD 3324

COURSE TITLE: COMMUNITY WATER SUPPLY & SANITATION

DATE: 12/08/2019

EXAM SESSION: 2.00 – 4.00 PM

TIME: 2.00 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: ANSWER ON QUESTIONS (30 MARKS)

1. Briefly explain the following concepts. (3 marks)
 - a) Eutrophication
 - b) Water ethics
 - c) Drinking water according to WHO
2. What is the importance of assessing water quality? (3 marks)
3. State the qualities of a good distribution system. (3 marks)
4. Outline the uses of allum in water treatment. (3 marks)
5. State the roles of water service boards in Kenya. (3 marks)
6. Determine efficiency of water supply using the case study below. (3 marks)

Household members 6, Rainfall per annum 1000 mm, Roof surface (Galvanized iron sheet) 30SqM, Period- May – August-2019
7. State the effects of turbidity in water. (3 marks)
8. Briefly explain the importance of community participation in the improvement of water and sanitation services. (3 marks)
9. Outline the health concerns associated with water supplied to consumers by water vendors. (3 marks)
10. State the household improved water technologies in your community. (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

1.
 - a) Outline the causes of water scarcity in Kenya. (10 marks)
 - b) Discuss the National strategies for improving quality of water and sanitation services. (10 marks)
2.
 - a) Kenya faces several developmental challenges that limit service delivery in the water sector. Discuss the National challenges. (14 marks)
 - b) Illustrate and discuss the hydrological cycle. (6 marks)
3.
 - a) With the aid of a diagram discuss the water hierarchy. (8 marks)
 - b) Discuss the strategies used in the prevention of water borne diseases. (12 marks)
4. a) You have been appointed the Community Health Officer of region X that is facing water scarcity discuss the factors you will consider in the selection of water source technology. (20 marks)