JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE

PUBLIC &COMMUNITY HEALTH AND DEVELOPMENT

3RD YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR

MAIN

COURSE CODE: **HCB 2306**

COURSE TITLE: **COMMUNITY WATER SUPPLY AND SANITATION**

EXAM VENUE: **STREAM: (BSc. Com Health and Dev)**

DATE: **EXAM SESSION:**

TIME: **2.00 HOURS**

Instructions:

1. **Answer all the questions in Section A each contain 3 marks and ANY other two questions in Section B each contain 20 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 QUESTIONS (30 MARKS)

1. Explain the meaning of 'water is not absolutely pure in nature' (3mks)
2. Describe THREE types of suspended impurities in water
3. Describe THREE Dissolved Impurities in water (3mks)

4. Describe THREE types of water quality parameters (3mks)
5. Explain THREE main foreign matter that can cause taste and odor in water (3mks)
6. Explain THREE chemicals generally used in the disinfection of water (3mks)
7. Explain any THREE conventional methods used for water purification (3mks)
8. Explain THREE types of sedimentation tank (3mks)
9. Explain THREE objectives of filtration (3mks)
10. Explain THREE different types of algae that are found in water (3mks)

SECTION B - ANSWER ANY TWO QUESTIONS FROM THIS SECTION

1. (i) Explain hydrological cycle (10 mks)
   (ii). Explain any five types of water pollution (10 mks)
2. (i). Explain Thermal pollution (10 mks)
   (ii). Explain the operation of the "three pot system" in household water treatment (10mks).
3. (i). Explain five reasons why chlorine remains the most popular in water disinfection (10mks).

   (ii). Explain some of the Socio-cultural barriers to abandoning open defecation. (10mks)
4. (i). Explain any three water associated diseases (15 mks)

   (ii). Explain five main objectives of water treatment (5mks)