



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

UNIVERSITY EXAMINATION FOR DIPLOMA IN COMMUNITY HEALTH AND DEVELOPMENT

2^{ND} YEAR 1^{ST} SEMESTER 2022/2023 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE: HDC 2215

COURSE TITLE: COMMUNITY WATER SUPPLY

EXAM VENUE: STREAM: (Dip Comm Health & Dev)

DATE: EXAM SESSION:

TIME: 1 1/2.00 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:

- 1. Briefly explain the following terms as used in community water and supply; (3 Marks)
- a) Flocculation
- b) Sedimentation
- c) Eutrephecation
- 2. Briefly explain what happens in secondary sedimentation tank in commercial water treatment (5 Marks)
- 3. How would you classify water based on bacteriological analysis? (5 marks)
- 4. Briefly discuss the objectives of water testing (4Marks)
- 5. What are the three water classifications based on source (3 Marks)
- 6. What will be your interpretation when the water analysis results indicate 'Numerous to count' (NTC) Coli forms and 45 E-Coli detected in your water test results? (3Marks)
- 8. Under ground water is one of the most reliable sources. List any three mechanisms that can be used to draw the water from underground source (3 Marks)
- 9. What are the factors to consider before deciding community water distribution design (4 Marks)

SECTION B:

- 1. With aid of a well labeled diagram, briefly discuss the commercial water treatment process (15 Marks)
- 2. You are in charge of a community based organization which have received donor fund for spring protection in your area of jurisdiction. Discuss the steps that you will undertake in the spring protection. (15 Marks)
- 3. Discuss factors contributing to water stress and how they can be remedied in an urban setup (15 Marks)
- 4. Discuss Eutrephecation and its effects and its control strategies (15 Marks)