



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR DIPLOMA IN COMMUNITY HEALTH AND**  
**DEVELOPMENT**  
**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2017/2018 ACADEMIC YEAR**  
**MAIN CAMPUS**

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**COURSE CODE: HDC 2215**

**COURSE TITLE: COMMUNITY WATER SUPPLY**

**EXAM VENUE: MAIN CAMPUS**

**STREAM: Diploma in Community Health and Development**

**DATE:**

**TIME: 1.30 HOURS**

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**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:**

1. Water palatability is of great concern to community water and supply, highlight any three parameters used to describe palatability in water **(3 Marks)**
2. Highlight the major roles of integrated water resources management? **(3 Marks)**
3. Water stress can cause disease transmission in any given community. List any three infections that can occur due to water stress **(3 marks)**
4. Water treatment is an important aspect in disease prevention; give any three water treatment options that can be applied at community level **(3 Marks)**
5. Water testing is important before supplying to community for consumption, List any three objectives of water testing **(3 Marks)**
6. List any three organizations/departments in Kenya that are concerned with water quality control **(3 Marks)**
7. Briefly discuss hydrological cycle **(3 Marks)**
8. Water quality can be classified based on bacteriological analysis or source. Enumerate the classifications based on bacteriological test **(3 Marks)**
9. Water can be source of disease spread in any given population, differentiate between water based and water borne diseases giving one example in each **(3 Marks)**
10. Enumerate any three factors to consider during feasibility study in spring protection **(3 Marks)**

## **SECTION B:**

1. Water stress remains one of the major challenges in developing countries; discuss the contributing factors to water stress and how they can be addressed in Kenya **(15Marks)**
2. You are working in an organization within Kisumu County as Program officer. Your organization in liaison with the County government have identified un protected spring and allocated funds to protect the same. You have been mandated to spear head the spring protection process. What are the steps you will take to protect the spring **(15 Marks)**
3. Water testing and treatment are key in reduction of infections associated with water.
  - a. What are the objectives of water testing **(5 Marks)**
  - b. Discuss factors influencing the sampling techniques **(10Marks)**
4. Eutrophication is one of the major challenges in water quality control in Kenya

- a) Briefly discuss various causes of Eutrophication in Kenya(5 Marks)
- b) What are the impacts of Eutrophication (5 Marks)
- c) How can Eutrophication be managed in Kenya to improve on water quality(5 Marks)