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

**UNIVERSITY EXAMINATION FOR DIPLOMA COMMUNITY HEALTH AND DEVELOPMENT**

**2ND YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR**

 **KISUMU LEARNING CENTRE**

**COURSE CODE: HDC 2215**

**COURSE TITLE: Community Water Supply**

**EXAM VENUE: STREAM: (Diploma Comm Hlth & Dev)**

**DATE: EXAM SESSION:**

**TIME: 1.30 HOURS**

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**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 1 COMPULSORY (30 MARKS)**

1. Define the following terms

Pollution (1 mark)

Water quality (1 mark)

Environmental sanitation (1 mark)

1. State 6 uses of water (3 marks)
2. Briefly explain the effects of water pollutants on health (3 marks)
3. State the determinants of water consumption (3 marks)
4. Explain the rationale of using alum in the treatment of water (3 marks)
5. State three advantages of rain water harvesting (3 marks)
6. State 6 types of water storage tanks (3 marks)
7. State any three sources of water pollution (3 marks)
8. Enumerate three guidelines for monitoring water and sanitation services (3 marks)
9. List any six water borne diseases and their causative organisms (3 marks)

**SECTION B ANSWER ANY TWO QUESTIONS (30 MARKS)**

1. Discuss the 3 factors in the governance and management of water and sanitation (15 marks)

2 a) Discuss the institutional factors determining water supply technology (10 marks)

b) Briefly explain the factors which influence the willingness of the users to pay (5 marks)

3. Discuss dysentery under the following headings

Causative organism (1 mark)

Signs and symptoms (4 marks)

Prevention strategies (10 marks)

4 a) Describe the hydrological cycle (6 marks)

b) Discuss the steps involved in chemical analysis of water (9 marks)