



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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**REGINA PACIS INSTITUTE OF HEALTH SCIENCES**

**MAIN EXAMINATION**

**SEPTEMBER – DECEMBER 2019 TRIMESTER**

**FACULTY OF SCIENCES**

**DEPARTMENT OF COMMUNITY HEALTH**

**REGULAR PROGRAMME**

**CHD 225: WATER SUPPLY MANAGEMENT**

**Date: DECEMBER 2019**

**Duration: 3 Hours**

**INSTRUCTIONS: Answer ALL Questions in SECTION A. Question ONE and any other ONE in SECTION B**

## **SECTION ONE: ANSWER ALL QUESTIONS (40 Marks)**

- Q1. State two physical and two chemical properties of water. **(4 marks)**
- Q2. Describe five uses of water in the community **(5 marks)**
- Q3. Outline four water sources within a rural community in Africa **(4 marks)**
- Q4. Explain three challenges of water supply within a municipality **(6 marks)**
- Q5. Distinguish between point and non-point source of pollution and give two examples in each case **(4 marks)**
- Q6. Differentiate between filtration and flocculation in water purification **(4 marks)**
- Q7. Outline the three objectives of IWRM in Water Supply Management **(3 marks)**
- Q8. Explain three IWRM tools in water supply management **(6 marks)**

Q9. Define watershed and water-related diseases and give an example in each case  
(4 marks)

**SECTION B: ESSAY QUESTIONS**

**(40 MARKS)**

**Answer question one and any other one question**

Q1. As an expert in your community, you intend to carry out a water resource assessment and device methods of protecting water sources from contamination.  
a) Describe the key issues to look out for when carrying out water resource assessment in your duty.

**(10**

**Marks)**

b) Describe five protection methods of the different water source from contamination.

**(10 marks)**

Q2. The hydrologic cycle encompasses different processes in the development of water resources.

a) Draw the hydrologic cycle and show the important phenomenon that is taking place at each stage.

**(10**

**marks)**

b) Define formation of ground water and explain any four advantages and disadvantages

**(10 marks)**

Q3. Water resources management entails both quality and participatory systems for managing the available resources.

a) Discuss any five challenges of implementing IWRM in Water Supply and management.

**(10**

**marks)**

b) Describe any five prevention and control measures of waterborne borne diseases.

**(10**

**marks)**

**\*END\***