



**MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**MAIN EXAM**

**2021/2022 ACADEMIC YEAR**

**SECOND YEAR FIRST SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL HEALTH**

**COURSE CODE: HEH 224**

**COURSE TITLE: WATER SUPPLY AND QUALITY CONTROL**

**DATE: 20/04/2022**

**TIME: 3.00-5.00 PM**

---

**INSTRUCTIONS TO CANDIDATES:**

**Answer All Questions in Section A and Any Two Questions in Section B**

**TIME: 2 Hours**

MMUST observes ZERO tolerance to examination cheating

Paper Consists of 2 Printed Pages. Please Turn Over



## **SECTION A: ANSWER ALL QUESTIONS (40 MARKS)**

1. Define the following terminologies as used in hydrology:
  - a) Acquiifer
  - b) Coagulant
  - c) Raw water
  - d) Porosity
  - e) Impermeable (5 marks)
2. What are the possible sources of water pollution? (4 marks)
3. List the key factors you should consider when choosing a water source for a particular community (4 marks)
4. Outline five desirable characteristics of drinking water. (5 marks)
5. List the main importance of water (4marks)
6. List the two forms of water hardness and highlight major problems associated with water hardness (4 marks)
7. Distinguish between surface water sources and underground water sources giving examples in each case (5 marks)
8. What are the physical parameters of water that are likely to affect its quality (5 marks)
9. Outline the four categories of diseases associated with water giving examples of diseases under each category (4 marks)

**SECTION B: ANSWER ANY TWO (2) QUESTIONS (30 MARKS)**

10. Describe the hydrologic cycle of water with the aid of a diagram (15marks)

11. As a newly deployed Public Health Officer, discuss the various methods of water treatment that you can advise the community to apply at household level.  
(15marks)

12. Describe systematically the steps of sampling water from a tap for bacteriological analysis (15 marks)

