



GRETSA UNIVERSITY - THIKA

UNIVERSITY EXAMINATIONS SEPTEMBER - DECEMBER 2021 SEMESTER

CERTIFICATE IN PUBLIC HEALTH AND COMMUNITY HEALTH

COURSE CODE: CIEH 043

COURSE TITLE: WATER SUPPLY AND HEALTH

DATE: 17 NOVEMBER 2021

TIME: 11.30 AM – 2:30 PM

INSTRUCTIONS TO CANDIDATES

1. SECTION A IS **COMPULSORY**.
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

CAUTION: *All exam rooms are under CCTV surveillance during the examination period.*

SECTION A: COMPULSORY

SECTION A: MULTIPLE CHOICE QUESTIONS

[ONE MARK EACH]

1. -----Is an underground zone or layer, which is a relatively good source of water. It is a rock formation that bears and yields water when penetrated by wells.
 - A. Aquifer
 - B. Confined water
 - C. Raw water
 - D. Porosity
2. Which of the following is not a characteristic of an ideal water storage facility?
 - A. Made of PVC
 - B. Water. Tight
 - C. Covered
 - D. Lockable opening
3. Which of the following is not a quantitative service indicator in community water supply system in Kenya?
 - A. Quality
 - B. Coverage
 - C. Cost
 - D. Recreation
4. Which of the following is not a true statement
 - A. Milk contains about 88% water.
 - B. Egg contains about 66% water.
 - C. Beef is 77% water
 - D. Body cell are 40%water
5. Which of the following is no a waterborne disease?
 - A. Infectious hepatitis
 - B. Yaws
 - C. Cholera
 - D. All of the above

SHORT ANSWER QUESTIONS: ANSWER ALL QUESTIONS IN THIS SECTION

1. Explain the following terms as used in community water supply [10 Marks]
 - i. Free water
 - ii. Palatable water
 - iii. Hydrological cycle
 - iv. Dissolved impurities
 - v. Artesian wells
2. Discuss the public health importance of water [6 Marks]
3. Discuss the significance of rain water to the community [5 Marks]
4. Describe three suspended impurities in water [6 Marks]
5. Highlight four occurrence of ground water [4 Marks]
6. Outline four factors that determine the amount of water used in a household [4 Marks]

SECTION B

[CHOOSE ANY THREE QUESTIONS]

QUESTION ONE

- a) Surface water sources are the available water sources to the community, discuss five methods of protecting these water sources [10 Marks]
- b) Discuss five sources of water pollutants and contaminants that render water unsafe for human consumption [10 Marks]

QUESTION TWO

- a) Discuss atleast five water-washed diseases and the appropriate preventative strategy [10 Marks]
- b) Explain five effects of water pollutants on human health [10 Marks]

QUESTION THREE

- a) Discuss five factors to consider when determining a suitable water supply source [10 Marks]
- b) Discuss some of the MEASURE towards prevention of water related diseases [10 Marks]

QUESTION FOUR

- a) During the COVID-19 pandemic there has been increased hand washing campaigns, Discuss some other direct or indirect benefits that might have achieved through hand washing in addition to the curbing the spread of the pandemic [10 Marks]
- b) Discuss the process of water treatment at for cities and big urban towns [10 Marks]