MACHAKOS UNIVERSITY

University Examinations 2017/2018

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

SECOND YEAR FIRSTSEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN IN POPULATION HEALTH

HEH 215: WATER SUPPLY, QUALITY AND DISEASE PREVENTION

DATE: 14/12/2017   **TIME: 11.00-1.00 PM**

INSTRUCTIONS

- The paper consists of **two** sections
- .Section **A** is **compulsory**
- Answer **any two** questions in section **B**

SECTION A (30 MARKS)

QUESTION ONE

a)   Differentiate between potable and palatable water.   (2 marks)

b)   Using a well labeled diagram, explain the various sources of water.   (4 marks)

c)   Explain methods that can be used to treat water in emergency situations.   (3 marks)

d)   Highlight three factors that have led to diminishing world fresh water resource. (3 marks)

e)   Explain three methods through which rain water can be harvested.   (3 marks)

f)   By giving relevant examples, explain the benefits of adequate water supply to women.

(3 marks)

g)   Water contamination at the household level can be prevented. Explain how you can achieve this.   (4 marks)

h)   Describe two main categories of water pollution citing relevant examples in each case.

(4 marks)

i)   Explain the disadvantages of hard water.   (4 marks)

SECTION B

QUESTION TWO

a)   Water is a necessity in life but it can as well cause disease. Justify this statement.

(10 marks)

b)   Explain five ways through which well water can be protected from contamination.

(10 marks)

QUESTION THREE

a)   Explain the challenges of achieving sustainable development goal number six (6) in Kenya.   (10 marks)

b)   Discuss the principles of integrated water resource management.   (10 marks)

QUESTION FOUR

a)   During your visit at the Nyeri Water and Sewerage Company, you were taken through a step by step treatment of drinking water. Explain these steps.   (10 marks)

b)   Describe the process of collecting a sample of tap water for bacteriological analysis.

(10 marks)

QUESTION FIVE

a)   During a field trip, you collected a sample of water from river Nyando. Using relevant examples, describe the characteristics you will be looking for when you will be analyzing the water.   (10 marks)

b)   Explain the significance of treating water before use.   (10 marks)