



MACHAKOS UNIVERSITY

University Examinations 2019/2020 Academic year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

SECOND YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN PUBLIC HEALTH.

HPH 212: CONSERVANCY AND DRAINAGE I

DATE: 27/11/2020

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

This paper consists of two sections A and B

SECTION A

Specific Instructions

- This section has one question
- The question is **COMPULSORY**
- The question is **30 marks**.

QUESTION ONE (30 MARKS)

- a) State the limitations of dry conservancy systems (3 marks)
- b) Highlight the importance of community involvement in designing and selecting an appropriate excreta disposal system (3 marks)
- c) Differentiate between a traditional pit latrine and a ventilated improved pit (VIP) latrine (3 marks)
- d) Outline the disadvantages of a bucket latrine as a method of excreta disposal (3 marks)
- e) Explain the key components of a septic tank (3 marks)
- f) Using a diagram, explain the components of a pit latrine (3 marks)
- g) State the principles of ecological sanitation (ECOSAN) (3 marks)
- h) Giving examples, explain two (2) main categories of human excreta disposal systems commonly used worldwide. (3 marks)
- i) Explain the advantages and disadvantages of a pour flush latrine (3 marks)
- j) State factors that determine positive sanitation behavior within a community in rural Kenya (3 marks)

SECTION B

Specific Instructions

- **This section has four (4) questions**
- **Answer any two (2) questions**
- **Each question is 20 marks**

QUESTION TWO (20 MARKS)

- a) With the aid of a diagram, describe the channels of disease transmission from excreta to humans. (10 marks)
- b) A community approaches you to advise it on how to construct an ordinary pit latrine. Explain what you will tell them including the necessary precautions they need to take. (10 marks)

QUESTION THREE (20 MARKS)

- a) Using relevant examples, discuss the environmental and human health impacts associated with mismanagement of human excreta (10 marks)
- b) Advise a campsite management team on how to develop and use a trench latrine giving advantages and disadvantages of the system. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss the factors that influence the selection of an appropriate conservancy system in Kenya (10 marks)
- b) Explain the importance of active community participation in sanitation programs (10 marks)

QUESTION FIVE (20 MARKS)

- a) Using a diagram, describe how a septic tank complete with a soakage line works. (10 marks)
- b) Explain the challenges faced by rural public health officers in the enforcement of sanitation laws (10 marks)