



MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN ENVIRONMENTAL STUDIES AND COMMUNITY
DEVELOPMENT

ECD 403: ENVIRONMENT AND COMMUNITY HEALTH

DATE: 9/8/2021

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) Define the following terms (4 marks)
- Community health
 - Health equity
 - Health disparity
 - Micro-environment
- b) Outline the major sources of pollution in the following sectors in Kenya's economy (4 marks)
- Water and Irrigation sector
 - Agricultural sector
 - Industrial sector
 - Transport sector

- c) Highlight the limitations of applying psychopharmacology approaches in environmental management (4 marks)
- d) Examine the concept of zero-waste management and its implication on environmental health practice (4 marks)
- e) Explain the function of bio-indicators in maintaining a sustainable environment (3 marks)
- f) Highlight the role of epidemiological triad in eliminating disease in the community. (4 marks)
- g) Outline the process of hazard identification (4 marks)
- h) Highlight major food contaminants and their effects on human health. (4 marks)

SECTION B:

Specific Instructions

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

QUESTION TWO (20 MARKS)

- a) Using examples discuss the challenges experienced in disposing degradable and non-biodegradable wastes. (10 marks)
- b) The Kenya Environmental Sanitation and Hygiene Policy 2016-2030 is not comprehensive in safeguarding the environment against degradation. Critique this statement. (10 marks)

QUESTION THREE (20 MARKS)

- a) Explain social determinants of health (SDOH) and their impact on a community of your choice (12 marks)
- b) Discuss the procedures and guidelines that you as an environmental officer would apply to manage an outbreak of malaria in Kakamega County. (8 marks)

QUESTION FOUR (20 MARKS)

- a) Providing safe and sufficient water is one of the goals of achieving sustainability in a community. In order to achieve this goal, the community has to understand the parameters of water quality. Critically evaluate this statement. (12 marks)
- b) The concepts of occupational health and safety allow an environmental officer to influence health and well-being. Discuss (8 marks)

QUESTION FIVE (20 MARKS)

- a) You were recently approached by a nongovernmental organization (NGO) to design a strategy on community development based on global principles. Discuss the principles that will guide the process. (10 marks)
- b) Risk assessment and management are core functions of environmental management and community engagement. Discuss. (10 marks)