



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF PUBLIC HEALTH

HPH 311: ENVIROMENTAL POLLUTION AND CONTROL

DATE: 15/12/2021

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
- This question is **COMPULSORY**
- The question is 30 Marks

QUESTION ONE (30 MARKS)

- a) Using relevant examples expound on the statements
- All toxins are toxicants, but not all toxicants are toxins (2 marks)
 - The dose makes the poison (2 marks)
- b) Using examples, explain the contributions of agricultural activities to land pollution (2 marks)
- c) Outline two (2) sources of air pollution and their effects on human health. Give examples (2 marks)
- d) Explain the consequences of global warming on the ecosystem (2 marks)
- e) A farmer was washing a pesticide sack in the river, highlight three likely recipients of the pollutant (3 marks)
- f) Outline the contributions of industrialization on water pollution (2 marks)

- g) The kidney is more susceptible to toxic agents. Give reasons (3 marks)
- h) Explain the organoleptic evaluation of household chemical substances. Give examples (3 marks)
- i) Highlight the challenges faced by poison centers and toxicovigance team in the prevention, and management of risks associated with toxic exposure (3 marks)
- j) Outline the responsibility of waste generators as listed in the Kenya environmental management and co-ordination (waste management) regulations of 2006 (3 marks)
- k) Highlight environmental pollution impacted by Covid -19 containment measures. (3 marks)

SECTION B:

Specific Instructions

- **This section has four (4) question**
- **Answer any two (2) questions**

Each question is 20 Marks

QUESTION TWO (20 MARKS)

- a) Discuss the consequences of land pollution to the ecosystem (10 marks)
- b) Use a graph to describe the distribution of responses when community members are exposed to fumes from a newly manufactured oil paint (10 marks)

QUESTION THREE (20 MARKS)

- a) Suppose you are working in a village as Public Health Officer, advise on to measures to protect water sources from pollution (10 marks)
- b) As a manager in Machakos County water and sewerage company write recommendations on approaches to help improve sewage waste water pollution (10 marks)

QUESTION FOUR (20 MARKS)

- a) Describe measures in the transport sector which can be put in place to prevent air pollution in our county (10 marks)
- b) Describe possible projects to recover ecosystems that have been degraded, damaged or destroyed by land, water and air pollution (10 marks)

QUESTION FIVE (20 MARKS)

- a) A battery manufacturing company has been in existence in the neighborhood of community X for ten years. Discuss factors to consider when assessing its impact on health of the community members (10 marks)
- b) Discuss personal habits for change to create a sustainable and healthy environment in Kenya (10 marks)