



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
BACHELOR OF SCIENCE IN COMMUNITY HEALTH
END OF SEMESTER EXAMINATION DECEMBER 2024

CHP 134: PRINCIPLES OF ENVIRONMENTAL HEALTH

DATE: TUESDAY 3RD DECEMBER, 2024

TIME: TWO HOURS START: 9.00AM FINISH 11.0AM

INSTRUCTIONS

1. This exam is marked out of 70 marks
2. This Examination comprises TWO Sections
Section A: Compulsory Question (30 Marks)
Section B: Long Answer Questions (40 Marks)
3. All questions in Section A are compulsory
4. Answer any TWO questions in Section B
5. DO NOT WRITE ON THE QUESTION PAPER

SECTION A: COMPULSORY (30 MARKS). SHORT ANSWER QUESTIONS

1. Define Environmental Health (2 Marks)
2. Identify three types of municipal waste (3 Marks)
3. Identify three major environmental factors that contribute to the spread of infectious diseases in a community (3 Marks)
4. Identify three pathways through which chemical contaminants enter the food chain (3 Marks)
5. Highlight four strategies for managing solid waste in urban areas (4 Marks)
6. Identify five forms of water treatment (5 Marks)
7. Pinpoint five importance's of environmental health to people's health (5 Marks)
8. State five key impacts of air pollution on human health (5 Marks)

SECTION B: ANSWER ANY TWO (2) QUESTIONS (40 MARKS). LONG ANSWER QUESTIONS

9. You have been hired as a food safety consultant to implement a HACCP plan in a small food production facility that processes fresh salads for retail. The facility uses raw vegetables, such as lettuce, tomatoes, and cucumbers, and adds dressings before packaging. Design a HACCP plan by addressing the following key components:

- (a) Identify at least three potential hazards that could occur in the salad production process. For each hazard, describe why it is a concern and how it could affect food safety. (6 marks)
- (b) Determine two critical control points (CCPs) in the salad production process. Explain why these points are considered critical and outline specific measures that would control the hazards. (6 marks)
- (c) For each CCP identified in part (b), establish the critical limits that must be met to ensure food safety. Include details on how these limits will be monitored and verified. (6 marks)
- (d) Describe the corrective actions that would be taken if monitoring shows that the critical limits are not being met at any of the CCPs. (2 marks)

10. You have been appointed to a team assessing occupational health and safety at a large manufacturing plant. Your role is to assess and mitigate workplace health hazards to ensure the safety of the employees.

(a) Identify and describe three types of occupational health hazards that employees in a manufacturing plant might face. Provide examples of each hazard. (12 marks)

(b) Propose four practical control measures that can be implemented to minimize the risks associated with these hazards. Explain how each measure helps in protecting workers' health.

(8 marks)

11. Solid waste management is a crucial aspect of environmental health, particularly in rapidly urbanizing areas. As a community health officer, you have been tasked to assist with developing a solid waste management plan for a community health unit in an urban area.

(a) Explain four different categories of solid waste generated in urban areas. Provide examples for each category and discuss the sources of these wastes. (16 marks)

(b) Identify and explain two major environmental and public health problems associated with improper solid waste management. (4 marks)