



AMREF INTERNATIONAL TRAINING CENTER

Qualification Code : 102105T46OH

Qualification : Community Health Work Level 5

Unit Code : HE/CU/CH/CC/04/5/A

Unit of Competency : Apply Microbiology and Parasitology Health

WRITTEN ASSESSMENT: END TERM PAPER

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper has two sections A and B
2. You are provided with a separate answer booklet
3. Marks for each question are as indicated
4. Do not write on the question paper

This paper consists of four (4) printed pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated

SECTION A (40 MARKS)

Attempt all the questions in this section.

1. Microbiology is the study of microorganisms, including bacteria, viruses, fungi, and protozoa.
List the FOUR major types of microorganisms. (4 marks)

2. Parasites are organisms that depend on a host for survival, often causing harm. Enumerate FOUR major types of parasites based on their structure and lifestyle. (4 marks)
3. The transmission of microbial infections can occur through direct and indirect means. Outline FOUR modes of disease transmission. (4 marks)
4. Proper sanitation is crucial in controlling the spread of parasitic diseases. Identify FOUR sanitation measures that help prevent parasitic infections. (4 marks)
5. The life cycle of parasites can be direct or indirect. Give FOUR examples of parasites with a complex (indirect) life cycle. (4 marks)
6. Some microbes and parasites can be transmitted via vectors. List FOUR vector-borne parasitic diseases. (4 marks)
7. Some bacteria produce toxins that cause diseases in humans. Enumerate FOUR bacterial diseases caused by toxin production. (4 marks)
8. Certain parasites invade human tissues, leading to severe health complications. Identify FOUR parasites that affect human tissues. (4 marks)
9. Anti-parasitic drugs are used to treat various parasitic infections. Give FOUR examples of anti-parasitic drugs and the diseases they treat. (4 marks)
10. Personal protective measures can help prevent infections caused by parasites and microbes. List FOUR personal protective measures used in community health. (4 marks)

SECTION B (60 MARKS)

*Answer **three** questions in this section*

11. Microorganisms have diverse structures and functions that enable them to thrive in various environments. Describe the structure and function of each of the following microorganisms:

(20 marks)

- a) Bacteria
 - b) Viruses
 - c) Fungi
 - d) Protozoa
 - e) Algae
12. You are working in a community health lab where you are tasked with monitoring microbial contamination in food and water samples.
- Understanding the conditions that support microbial growth is essential for effective prevention and control strategies.
- a) Identify five environmental or physical factors that affect the growth of microorganisms. (5 marks)
 - b) Discuss how each of the factors identified in (a) influences microbial growth, including examples relevant to food or water safety (15 marks)
13. Parasites have different types of hosts during their life cycle. Discuss each of the following types of hosts, providing an example for each
- a) Definitive host (5 Marks)
 - b) Intermediate host (5 Marks)
 - c) Paratenic host (5 marks)
 - d) Reservoir host (5 Marks)
14. Bacteria require optimum conditions for growth, and these increases its virulence and infectivity in the host.
- a) Explain FIVE Gram positive bacteria. (5 Marks)
 - b) Using a well labeled diagram, Describe the microbial growth curve. (15 Marks)