



AMREF International Training Center

Qualification Code : 102106T4COH
Qualification : Community Health Level 6
Unit Code : HE/OS/CH/CC/05/6/A
Unit of Competency : Apply Microbiology and Parasitology

WRITTEN ASSESSMENT

Time: 3 HOURS

INSTRUCTION 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 and that no questions are missing*

SECTION A: (40 MARKS)

Answer ALL the Questions in This Section

1. Bacterial diseases can affect your skin, lungs, brain, blood and other parts of your body. Enumerate **THREE** bacterial diseases. (3 Marks)
2. A parasite is an organism that depends on a host and gets its nutrients from it. Giving **ONE** example in each, differentiate between Ectoparasites and Endoparasites. (4 Marks)
3. Bacterial cell forms a rigid structure of uniform thickness around the cell. Highlight **FOUR** functions of a bacteria cell wall. (4 Marks)
4. Bacteria are classified into groups according to their basic shapes. Identify **FOUR** characteristics used to classify bacteria. (4 Marks)
5. Stool analysis is vital in the determination of parasites through laboratory investigation. State **FOUR** endo-parasites that might be present in stool. (4 Marks)
6. Stool analysis is vital in diagnosis of various disease caused by parasites. Highlight **TWO** stool concentration techniques. (3 Marks)
7. Protozoa have been divided based on their mode of locomotion. State **FOUR** characteristics of a protozoa. (4 Marks)
8. Microbes requires appropriate environmental conditions for them to thrive. Name **FOUR** conditions that promote the growth of microbes. (4 Marks)
9. Natural history of a disease is the course of a disease in an individual over time in the absence of any intervention. Identify **FOUR** objectives of primary prevention of diseases. (4 Marks)
10. A virus is a submicroscopic infectious agent that replicates only inside the living cells of an organism. Outline **THREE** characteristics of the virus (3 Marks)
11. Disease agents are transmitted from one person to another using different modes. State **THREE** modes of disease transmission (3 Marks)

SECTION B: (60 MARKS)

Answer Any THREE Questions in This Section.

12. Bacteria require certain conditions for growth, and these conditions are not the same for all bacteria. The conditions help the bacteria to grow, increasing its virulence and infectivity in the host. Bacteria are found on surfaces we interact with, for example, our desks, books, doors and even clothes.

a) Discuss **FOUR** methods of controlling these bacteria in our environments. (8 Marks)

b) Describe the **FOUR** phases of microbial growth. (12 Marks)

13. Cholera cases have continued to be reported in Kenya over the past years. The Ministry of Health is working closely with community health workers to control and prevent such outbreaks.

a) Discuss **SIX** possible risk factors for the emergence of a cholera outbreak. (12 Marks)

b) Using a diagram, illustrate the transmission cycle of cholera. (8 Marks)

14. The transmission of pathogens from current to future hosts follows a repeating cycle. This cycle is called the disease transmission cycle.

a) Discuss **SIX** elements in the chain of disease transmission. (12 Marks)

b) Describe **FOUR** symptoms of tuberculosis (8 Marks)

15. There is a wide range of eukaryotic organisms, including all animals, plants, fungi, and parasites.

a) With an aid of a well labeled diagram illustrate the structure of a eukaryotic cell (10 Marks)

b) Explain the function of each of the above labeled cell organelles (10 Marks)