



**AMREF INTERNATIONAL TRAINING CENTRE**

**Qualification Code:** 102105T4COH

**Unit Course:** COMMUNITY HEALTH LEVEL 5

**Unit Code:** HE/OS/CH/CC/05/6/A

**Unit of Competency:** APPLY BASIC MICROBIOLOGY AND PARASITOLOGY

**WRITTEN ASSESSMENT**

**Time: 3 hours**

**INSTRUCTIONS TO CANDIDATES**

*This paper consists of **TWO** sections: A and B.*

*Answer questions as per instructions in each section.*

*Maximum marks for each question are indicated in brackets ().*

*You are provided with a separate answer booklet.*

*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**

*Amref International University -TVET Directorate: Training for Primary Health Care*

**SECTION A [40 MARKS]**

*Answer ALL the questions in this section*

1. Define the following terms; (4 Marks)
  - a) Parasite
  - b) Microbe
2. State FOUR morphological features used in classifying microbes and parasites. (4 marks)
3. State FOUR causative agents of pathogenic diseases in humans (4 Marks)
4. Differentiate between mutualism and parasitism (4 Marks)
5. State FOUR proximate risk factors (4 Marks)
6. Outline TWO roles of vectors in disease transmission (4 Marks)
7. Illustrate the FIVE periods of progression of an infectious disease (5 Marks)
8. Differentiate between virulence and pathogenesis. (4 Marks)
9. List FOUR objectives of primary prevention of diseases. (4 Marks)
10. State THREE control measures for infections caused by parasites and microbes (3 Marks)

**SECTION B (60 MARKS)**

*ANSWER ANY THREE QUESTIONS IN THIS SECTION*

11. The prevalence of Helminthic diseases among pre-school children remains a public health challenge and this can have an effect on their physical growth.
  - a) Identify TWO helminthic diseases apart from Ascariasis. (2 Marks)
  - b) Explain TWO risk factors of helminthic diseases. (4 Marks)
  - c) Explain the SEVEN stages of life cycle of Ascariasis. (14 Marks)
12. A rapid needs assessment was conducted to determine the prevalent diseases in your community during which tuberculosis was singled out to be a major concern. The assessment evaluated the severity and magnitude of the disease. Considering that Tuberculosis is a bacterial infection caused by *Mycobacterium tuberculosis*.
  - a) Explain FIVE risk factors that might have exposed your community to the disease. (10 marks)

- b) Describe FIVE modes of *Mycobacterium tuberculosis* transmission from one person to another within the community set up. (10 marks)
13. In a closed system or batch culture where no food is added and no wastes removed, bacteria will grow in a predictable pattern, resulting in a growth curve composed of four distinct phases of growth.
- a) Illustrate the microbial growth curve. (4 Marks)
- b) Describe the FOUR phases of microbial growth. (16 Marks)
14. As a health personnel, you are called upon to determine the chain of infection of a recent outbreak of malaria infection in an irrigation scheme.
- a) Identify the parasite which causes severe malaria. (2 marks)
- b) Describe THREE ways of transmission of plasmodium parasites to a healthy person from an infected person. (6 marks)
- c) Explain SIX measures the government has implemented to prevent and control plasmodium disease in your community. (12 Marks)