

102105T4COH

COMMUNITY HEALTH LEVEL 5

HE/OS/CH/CC/04/5/A

APPLY BASIC MICROBIOLOGY AND PARASITOLOGY

July/August 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of two sections; **A** and **B**
2. Answer **ALL** the questions as guided in each section
3. Marks for each question are as indicated in the brackets
4. You are provided with a separate answer booklet to answer the questions
5. Do not write in this question paper

This paper consists of THREE (3) printed pages

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing

SECTION A: [40 MARKS]

Answer ALL questions in this section

1. There are different types of parasites affecting humans. Mention THREE main types of parasites. [3 Marks]
2. Differentiate between mechanical and biological vector. [4 Marks]
3. Microbial examination is an important aspect in detecting different types of microorganisms causing diseases in human beings. Highlight THREE types of microbial examination. [3 Marks]
4. For a disease to manifest itself, there must be a portal of entry of micro-organism into the body. Mention FOUR portals of entry of microbes into the body. [4 Marks]
5. As a Community Health Assistant, you will be required at times to collect specimens and perform rapid diagnostic tests in the community. Mention TWO Personal Protective Equipment that you would require to perform such activities. [2 Marks]
6. Bacteria thrive at different temperatures. Highlight THREE classifications of bacteria under this temperature requirement. [3 Marks]
7. For microbes to cause a disease there must exist some conditions for the disease to manifest. Outline FOUR conditions for illness to occur. [4 Marks]
8. As a community health assistant, you have been tasked to give a health talk on bacterial food borne illnesses to caregivers. Highlight FOUR signs and symptoms of bacterial food borne illness. [4 Marks]
9. A study conducted in county X found that 150 out of 200 people with Tuberculosis disease died during the 10 year follow up period. Calculate the incidence proportion. [3 Marks]
10. Helminthes are derived from the Greek word “worms”. Mention the THREE main groups of helminthes. [3 Marks]
11. Parasites depends on host organisms for survival. Highlight FOUR classification of host organisms [4 Marks]
12. Different microorganisms may thrive well in different PH scale. Identify THREE classifications of these microbes. [3 Marks]

SECTION B: [60 MARKS]

*Answer any **THREE** questions in this section*

13. Microorganisms require certain conditions for their growth which affects their life cycle.
- a) Define the term microbial growth. [2 Marks]
 - b) Explain FIVE requirements that are needed for microbial growth. [10 Marks]
 - c) Discuss FOUR stages/phases of the bacterial life cycle. [8 Marks]
14. A 28-year-old man presented himself to the health facility with clinical signs and symptoms of malaria. During history taking it was noted that he recently returned from a tropical region known to be a malaria-endemic region.
- a) Explain the malaria parasite life cycle. [10 Marks]
 - b) Discuss strategies for controlling and preventing the spread of malaria in endemic regions. [10 Marks]
15. Communicable diseases are diseases that can be transmitted from one person to another through direct or indirect contact.
- a) Explain THREE categories of direct contact transmission. [6 Marks]
 - b) Vehicle transmission refers to the transmission of pathogens through ‘vehicles. Explain TWO main vehicles of disease transmission and the associated diseases. [4 Marks]
 - c) Explain FIVE risk factors that increase host susceptibility to communicable infections. [10marks]
16. Hygiene and sanitation plays a key role in the interruption of transmission of communicable diseases.
- a) Discuss FIVE measures that can be applied to control the transmission of infectious agents in your community. [10 Marks]
 - b) Explain FIVE risk factors that increase host susceptibility to communicable infections [10 Marks]

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