

**102105T4COH**

**COMMUNITY HEALTH LEVEL 5**

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

**Apply Basic Microbiology and Parasitology**

**March/April 2025**



**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** questions in section A and **ANY THREE** (3) questions in section B.
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet
5. Do not write on the question paper.

**This paper consists of Three (3) printed pages.**

**Candidate should check the question paper to ascertain that all pages are  
printed as indicated.**

**SECTION B: (40 MARKS)**

*Answer ALL the questions in this section*

1. Parasitic protozoa have to multiply in susceptible host for infection to occur. State TWO methods they can use to reproduce. **(2 Marks)**
2. State THREE benefits of studying microbiology and parasitology. **(3 Marks)**
3. Outline THREE examples of viruses that can infect an individual in a community. **(3 Marks)**
4. State FOUR needs for classifying micro-organisms. **(4 Marks)**
5. Identify THREE vulnerable groups to microbial and parasitic infections in the community. **(3 Marks)**
6. Outline THREE hosts of Schistosoma Spp. **(3 Marks)**
7. Mention THREE sign and symptoms that a person suffering from Visceral Leishmania can manifest. **(3 Marks)**
8. Highlight FOUR characteristics of a virus. **(4 Marks)**
9. State THREE objectives of primary prevention of microbial diseases in a community. **(3 Marks)**
10. Highlight FOUR conditions necessary for microbial growth. **(4 Marks)**
11. State FOUR types of ecological relationships characterized by interaction among organisms within their ecological niche. **(4 Marks)**
12. Highlight FOUR measures that must be implemented to prevent the spread of common parasitic and microbial infections in a community. **(4 Marks)**

**SECTION C: (60 MARKS)**

*Answer any THREE questions in this section*

13. You have been invited by the community health assistant of the neighboring community to train the community health promoters on parasitic diseases.
- a. Explain FIVE strategies they can use to reduce parasitic diseases. **(10 Marks)**
  - b. Assess FIVE challenges they can encounter when managing parasitic diseases. **(10 Marks)**
14. COVID-19 pandemic posed a great health crisis globally. In Kenya, the Ministry of Health is spearheading efforts with community health workers to control and prevent this pandemic.
- a) Discuss FIVE contributing factors to increased cases of COVID-19 pandemic in informal settlement. **(10 Marks)**
  - b) Viruses are obligatory intracellular parasites. They undergo a sequence of events to enable them replicate in the host cell. Describe the steps involved in viral replication process. **(10 Marks)**
15. Bacteria require optimum conditions for growth, and these increases its virulence and infectivity in the host.
- a) State FIVE Gram positive bacteria. **(5 Marks)**
  - b) Using a well labeled diagram, Describe the microbial growth curve. **(15 Marks)**
16. During community outreach, two cases of syphilis were diagnosed, therefore, as community health assistant you decided to educate the youths on Sexually Transmitted Infections.
- a) Explain THREE ways syphilis can be transmitted among the youths **(6 Marks)**
  - b) Describe SEVEN measures they can take to prevent and control syphilis. **(14 Marks)**