



AMREF INTERNATIONAL TRAINING CENTER
CERTIFICATE IN COMMUNITY HEALTH (CCH) LEVEL 5
HE/CU/CH/CC/02/5/MA

Apply Microbiology and Parasitology in Community Health

END OF TERM EXAM

DATE:12TH AUGUST 2026

Time: 2 HOURS START:9AM FINISH:11AM

INSTRUCTIONS TO CANDIDATE

1. You have THREE hours to answer all the questions.
2. Marks for each question are indicated in the brackets.
3. The paper consists of TWO sections: A and B.
4. Do not write on the question paper.
5. A separate answer booklet will be provided.

This paper consists of FIVE (5) 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: ANSWER ALL QUESTIONS (40MARKS)

1. A Community Health Assistant is educating community members about germs that cause disease.
 - a) Define the term microorganism. [2 Marks]
 - b) List FOUR types of microorganisms that cause disease in humans. [4 Marks]
2. A mother brings her child to a community health post. The child has a swollen belly and the CHA suspects worm infection.
 - a) Define the term parasite. [2 Marks]
 - b) Give TWO differences between endoparasites and ectoparasites and list their examples [4 Marks]
3. A Community Health Promoter is explaining to community members why they must boil drinking water before use.
 - a) Name TWO waterborne diseases caused by bacteria that are common in Kenyan communities. [2 Marks]
 - b) State FOUR methods a household can use to make drinking water safe. [4 Marks]
4. Malaria is one of the leading causes of illness in Kenyan communities.
 - a) Name the causative organism of malaria and the insect that transmits it. [2 Marks]
 - b) State THREE stages of the malaria parasite life cycle inside the human body. [3 Marks]
 - c) List TWO ways of preventing malaria at the household level. [2 Marks]
5. A community health volunteer asks their supervisor to explain what vectors are and why they matter in disease transmission.
 - a) Define the term *vector* as used in parasitology. [2 Marks]
 - b) Name THREE diseases transmitted by vectors that are common in Kenya, and for each, name the vector responsible. [3 Marks]

6. A village experiences an outbreak of cholera following flooding.
- a) State the causative organism of cholera. [1 Mark]
 - b) Give THREE reasons why cholera spreads easily after floods. [3 Marks]
 - c) Outline TWO measures a CHA should take immediately to help control the outbreak. [2 Marks]
7. During a school health day, a CHA is asked to explain to pupils how the body fights infections.
- a) Define the term *immunity* as used in community health. [2 Marks]
 - b) Give TWO examples of vaccines given to children under Kenya's national immunization programme and state the disease each prevents. [4 Marks]
8. A community member asks a CHA to explain the difference between bacteria and viruses.
- a) Give TWO differences between bacteria and viruses. [2 Marks]
 - b) Give ONE example of a disease caused by bacteria and ONE caused by a virus that are commonly found in Kenyan communities. [2 Marks]

SECTION B: 60MARKS

ANSWER THREE QUESTIONS

9. A CHA working in a fishing community along Lake Victoria notices high rates of schistosomiasis (bilharzia) among children who swim and fetch water from the lake.
- a) Describe the life cycle of *Schistosoma* and explain at which stages community members are at risk of infection. [10 Marks]
 - b) Explain FIVE community-level interventions a CHA would implement to reduce schistosomiasis transmission in this lakeside community. [10 Marks]

10. Typhoid fever cases are increasing in a busy market centre. Investigations show poor sanitation and unsafe water as the main causes.
- a) Name the causative organism of typhoid and explain how it spreads through the faecal-oral route. [6 Marks]
 - b) Identify FOUR risk factors at market centres that contribute to the spread of typhoid and other microbial diseases. [8 Marks]
 - c) Recommend THREE hygiene and sanitation interventions that can help control typhoid in the market area. [6 Marks]
11. Sexually transmitted infections (STIs), including HIV, are a major public health concern in many communities.
- a) Name THREE common STIs, state the type of organism that causes each, and describe how each is transmitted. [9 Marks]
 - b) List FIVE personal hygiene and behaviour practices a CHA should teach to reduce STI transmission. [5 Marks]
 - c) Explain why a CHA needs to understand microbiology and parasitology in their daily work. [6 Marks]
12. A community health unit in Garissa County reports recurring outbreaks of dysentery during the dry season. Many households rely on shared pit latrines and open defecation is common.
- a) Describe the pathogenesis of amoeba, stating the causative organism and TWO signs and symptoms. [8 Marks]
 - b) Assess FOUR environmental factors in this setting that increase the risk of outbreaks. [6 Marks]
 - c) Describe how a Community Health Assistant would use the faecal-oral transmission model to educate this community on preventing dysentery. [6 Marks]
13. A measles outbreak has been reported in a community with low vaccination rates. You are tasked with educating community members.
- a) Describe the causative organism of measles, how it spreads, and THREE signs and symptoms to look out for. [8 Marks]
 - b) As a CHA, describe how you would conduct a health education session to prevent further spread of measles in the community. [12 Marks]