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COMMUNITY HEALTH LEVEL 6

HE/OS/CH/CC/03/6

Apply Epidemiology in Community Health

November /December 2025

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

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WRITTEN ASSESSMENT

Time: 3 Hours

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INSTRUCTION TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Attempt **ALL** questions in section **A**.
3. Attempt **any THREE** questions in section **B**.
4. Marks for each question are indicated in the brackets.
5. Candidates are provided with a separate answer booklet
6. Do not write on the question paper.

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This paper consists of FIVE (5) 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 the questions in this section***

1. Disease surveillance is an activity that involves monitoring of the health status of a community. Before starting the activity, planning has to be done. Identify FOUR actions that are taken during the planning stage. (4 Marks)
2. In the process of gathering data during disease surveillance, various tools are used to gather this data. Outline any FOUR tools used. (4 Marks)
3. A disease surveillance system an information-based activity that involves collecting, analysing and interpretation of large volumes of data originating from multiple sources. Name FOUR advantages of disease surveillance. (4 Marks)
4. Population screening describes the states of health of the local people, enables the identification of the major risk factors and causes of the ill health. List any FOUR personnel that you would require while planning for community screening activity. (4 Marks)
5. Disease progression process begins with exposure to or accumulation of risk factors capable of causing disease in a susceptible host. Outline the first FOUR stages of the disease progression cycle. (4 Marks)
6. The Ministry of health classifies some diseases as notifiable. While identifying these communicable diseases, they use a certain criterion that is free from bias. Name any TWO such criteria used to classify a disease as notifiable. (2 Marks)
7. After community screening, the community health worker comes up with a report on the activities and outcomes. Identify any TWO platforms that can be used to disseminate screening report to the community. (2 Marks)
8. The epidemiological triangle shows the relationship between different elements that interact to cause a certain health outcome. List the FOUR elements of the epidemiological triangle. (4 Marks)
9. To be most effective, a dissemination plan should be developed prior to the completion of the study, identifying the strategies for dissemination and the targeted audience. Outline any TWO activities in preparation process for dissemination of report. (2 Marks)
10. Measures of association are statistical measures that fill the strength of association between exposure and outcomes. List any TWO possible interpretations of relative risk as a measure of association. (2 Marks)
11. Epidemiological research can be classified in many different ways depending on its nature. Name any TWO ways you can classify epidemiological research and list ONE example of each type of epidemiological study design. (4 Marks)

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12. A sampling involves selecting a group of people or subjects that are taken to represent the target population. Identify FOUR non-probability sampling methods. (4 Marks)

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SECTION B: (60 MARKS)***Answer ANY three questions in this section***

13. Hypothesis is a statement that predicts the relationship between variables under study or it is a tentative explanation for uncertain behaviour patterns, phenomenon or events that have occurred.

a) Describe FIVE characteristics of a workable hypothesis. (10 Marks)

b) Once the research has been conducted, the findings should be disseminated as widely as possible. Explain any FIVE components of the final report that is to be disseminated. (10 Marks)

14. According to the WHO, community diagnosis is a quantitative and qualitative description of the health of citizens and factors which influences, identifies problems and stimulates action. After identification of those factors, the community health worker needs to initiate appropriate prescriptions for treatment.

a) Describe FIVE steps that you would follow to allow appropriate prescription of drugs. (10 Marks)

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b) Review any FIVE health interventions used to control and prevent the spread of diseases. (10 Marks)

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15. Analytical study designs are further studies on the occurrence and distribution of disease to determine the validity of a hypothesis concerning the occurrence of disease while answering the questions 'why' and 'how'.

a) Explain FIVE applications of analytical study designs in epidemiology. (10 Marks)

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b) The purpose of analysing data is to obtain usable and useful information. Outline THREE steps to follow when organizing for data analysis and interpretation. (3 Marks)

c) Once data analysis and data interpretation has been done, then one prepares to disseminate the report. List any THREE ways of disseminating the report (3 Marks)

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d) In epidemiologic research, the calculation of appropriate measures of disease frequency is the basis for the comparison of populations and therefore identification of disease causes. Identify FOUR measures of association. (4 Marks)

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16. a) Disease surveillance involves constant monitoring of disease states and health conditions in the community. Analyze the THREE types of surveillance used in epidemiology. (15 Marks)

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b) As a community health worker, you will be tasked with a responsibility of planning and developing a population screening plan or project. Outline any FIVE factors to consider before embarking on community screening activity. (5 Marks)

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