

102105T4COH

COMMUNITY HEALTH LEVEL 5

HE/OS/CH/CC/02/5/A

Apply epidemiology in community health

July/August 2023



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

WRITTEN ASSESSEMENT

3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **three** sections: **A, B** and **C**.
2. Answer **ALL** questions in sections A, B and C in the answer booklet provided.
3. Marks for each question are indicated in brackets.
4. Do not write on this question paper.

This paper consists of 7 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: (20 Marks)

Answer all questions in this section. Each question carries one mark.

1. In which of the following circumstances can the prevalence of a disease in the population increase?
 - A. If the incidence rate of the disease falls.
 - B. If survival time of the disease increases.
 - C. If recovery of the disease is faster.
 - D. If the population in which the disease is measured decreases.
2. A person who is invaded by a disease micro-organism is called _____.
 - A. A host
 - B. An agent
 - C. An environment
 - D. A susceptible person
3. From the following, select diseases that are transmitted from infected animals to humans.
 - A. Zoonotic diseases.
 - B. Helminthic diseases.
 - C. Vector borne diseases.
 - D. Enteric fevers
4. Which one of the following is a constituent of an agent in epidemiological triangle model of disease determinants?
 - A. Virulence
 - B. Genetic susceptibility
 - C. Immunosuppression
 - D. Resistance
5. Incubation period in the natural history of a disease is the _____.
 - A. Period when communicability of disease is increased.
 - B. Period when an agent sheds to the environment.
 - C. Period taken from infection to recovery.
 - D. Period taken from infection to manifestation of disease.
6. Which one of the following defines portal of exit in the chain of disease transmission?

- A. The environment in which pathogens lives and multiply.
 - B. Means by which an infectious agent leaves the host.
 - C. The presence or absence of resistance to an infectious agent.
 - D. Means by which an infectious agent enters new host.
7. _____ is a primary prevention method of diseases in the community.
- A. Screening
 - B. Immunization
 - C. Physical examination
 - D. Teaching insulin administration
8. Choose from the following, a notifiable disease in Kenya.
- A. Diabetes
 - B. Chronic Obstructive disease
 - C. Measles
 - D. Hypertension
9. Herd immunity in most infectious diseases is attained when _____ population is vaccinated.
- A. 10%
 - B. 30%
 - C. 50%
 - D. 80%
10. Identify from the following, a stakeholder whose mandate is to declare a disease as a pandemic.
- A. Ministry of health.
 - B. County government
 - C. The United States of America
 - D. World Health Organization
11. The number of cases (new and old) of a specified disease over a given time interval from estimated population at mid interval is referred to as _____
- A. Period prevalence
 - B. Prevalence
 - C. Point prevalence

- D. Disease prevalence
12. Which of the following terms describes the reduction of diseases to locally acceptable levels?
- A. Extinction
 - B. Eradication
 - C. Control
 - D. Elimination
13. Choose from the following, elements of demographic data.
- A. Sex, religion, birth order, age
 - B. Age, religion, aesthetic tasks, sex
 - C. Marital status, age, sex, educational level
 - D. Sex, marital status, siblings, economic status
14. Total number of deaths reported during a given time interval from estimated mid-interval population is called_____
- A. Death rate
 - B. Crude death rate
 - C. Mortality rate
 - D. Proportional mortality
15. Which of the following is a component in the integrated disease surveillance and response (IDSR) weekly reporting tool?
- A. Highly contagious diseases
 - B. Epidemic prone diseases
 - C. Diseases of weekly concern
 - D. Diseases already eradicated
16. Choose from the following a term that defines a group of people or elements that have similar characteristics.
- A. Sample
 - B. Parameter
 - C. Hypothesis
 - D. Population
17. _____ is a graphical illustration that shows the distribution of various age groups in population.

- A. Dependency ratio
 - B. Age ratio
 - C. Population pyramid
 - D. Population dynamics
18. COVID-19 affected a large proportion of population over a wide geographic area in 2020 and 2021. Which among the following spread of diseases is this?
- A. Epidemic
 - B. Pandemic
 - C. Endemic
 - D. Opportunistic
19. Which of the following are components of surveillance system information cycles?
- A. Family and community
 - B. Public, Health care provider and Health agencies
 - C. Public, health care providers, and police
 - D. Public, Health care provider only
20. Which of the following notifiable diseases is characterized by rapid onset of fever, vomiting, headache and neck stiffness?
- A. Typhoid
 - B. Polio
 - C. Dracunculiasis
 - D. Meningococcal Meningitis

SECTION B: (40 Marks)

Answer all questions in this section

21. Define the following terms; (2 Marks)
- a) Isolation.
 - b) Carrier. (2 Marks)
22. As a community health assistant state FOUR benefits of having knowledge of epidemiology in community health practice. (4 Marks)
23. Identify THREE sources of data used in epidemiological studies. (3 Marks)
24. Outline FOUR platforms where screening report can be disseminated. (4 Marks)
25. Identify FIVE qualities of indicators of epidemiological data. (5 Marks)
26. Mention FIVE transmission routes of communicable diseases in your community. (5 Marks)
27. Highlight FIVE measures you can apply in controlling communicable diseases in your community. (5 Marks)
28. Enumerate THREE aims of population screening programs in your community. (3 Marks)
29. Mention FOUR strategies a community health assistant can use to minimize errors during data collection. (4 Marks)
30. In Kenya, community-based disease surveillance remains active via community health volunteers. State THREE steps involved in surveillance. (3 Marks)

SECTION C: (40 MARKS)

Answer any two questions in this section

31. As a student attached to a hospital you have accompanied a community health officer for a field excursion, where he has asked you to teach the following topics to a public Barraza.
- a) Define the term disease Surveillance. (2 Marks)
 - b) Explain THREE objectives of disease surveillance in the community. (6 Marks)
 - c) Describe SIX steps involved in planning disease surveillance system. (12 Marks)
32. Epidemics can be classified according to the method of spread or propagation, nature and length of exposure to the infectious agent, and duration.
- a) Explain THREE types of epidemics. (6 Marks)
 - b) Describe SEVEN steps involved in investigation of an epidemic. (14 Marks)
33. As a community health worker, you have been tasked with the responsibility of planning and developing for population screening in your community.
- a) Explain FIVE methods of obtaining data from the community during the screening process. (10 Marks)
 - b) Describe FIVE factors considered before undertaking community screening. (10 Marks)

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