



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR **DIPLOMA IN** COMMUNITY HEALTH**

**1st Year 2nd SEMESTER 2022/2023 ACADEMIC YEAR
MAIN/KISUMU**

COURSE CODE: HDC 2123

COURSE TITLE: APPLY EPIDEMIOLOGY IN COMMUNITY HEALTH

EXAM VENUE:

STREAM: (Dip. CHD)

DATE:

EXAM SESSION:

TIME: 3.00 HOURS

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 **THREE** sections: A , B and C
4. Do not write on the question paper.
5. A separate answer booklet will be provided.

SECTION A [40 MARKS]

(Answer all the questions in this section- each is 1 mark)

1. Which of the following statement is true about epidemiology?
 - A) It is the study of the distribution and determinants of health-related states or events in specified population
 - B) It is the study of disease pattern
 - C) It is the study of health-related illness
 - D) It is the study of distribution of persons
2. Malaria mainly affects children. This is
 - a) Distribution by person
 - b) Distribution by place
 - c) data accumulation
 - d) distribution by time
3. The following are stages in natural history of a disease except
 - a) susceptibility
 - b) clinical disease
 - c) sub-clinical disease
 - d) prevention
4. Suppose the epidemic of common cold occur in your area. What type of epidemic is this one
 - a) point source epidemic
 - b) propagated epidemic
 - c) mixed epidemic
 - d) common source epidemic with continued exposure
5. The following are platforms where health surveillance reports can be communicated to community members except
 - a) Chief barazas
 - b) schools
 - c) churches
 - d) hotels

6. the following are steps in community health need assessment except
 - a) Profiling
 - b) Deciding on priority action
 - c) Planning public health action
 - d) Resource allocation
7. Ratio and proportion are frequency measures
 - a) True
 - b) false
8. Which of the following statement is true while conducting community screening?
 - a) involve the community throughout the process
 - b) should be done once in a month
 - c) should be done by community health worker only
 - d) should be published in the local daily
9. the following are characteristics of vital statistics except
 - a) compressive
 - b) limitation
 - c) continuous
 - d) compulsory
10. Typhoid fever is a notifiable disease
 - a) true
 - b) false
11. Which stage of disease progression is characterized by occurrence of symptoms?
 - a) Incubation stage
 - b) Prodromal stage
 - c) Decline stage
 - d) Clinical stage
12. Meningococcal meningitis is not a notifiable disease
 - a) True
 - b) False
13. In which stage of the disease progression can the patient progress to be a carrier

- a) Incubation stage
 - b) Decline stage
 - c) Clinical stage
 - d) Prodromal stage
14. What are the factors to consider while disseminating disease surveillance report?
- a) Availability of print media
 - b) Availability of resources
 - c) Accuracy and timely of information
 - d) Duration
15. Epidemic refers to the disease that is constantly in a given area
- a) true
 - b) false
 - c) none of the above
16. The following are notifiable diseases except
- a) Malaria
 - b) HIV/AIDS
 - c) Cholera
 - d) Polio
17. Who among the following is an influential person in the community?
- a) Area chief
 - b) Youths
 - c) Fishermen
 - d) None
18. Which one of the following is a type of disease surveillance?
- a) Active surveillance
 - b) Reporting
 - c) Survey
 - d) focused-group discussion

19. Body weight can be measured using the following anthropometric measurements except;

- a) MUAC
- b) Weighing scale
- c) Tape measure
- d) Thermometer

20. The following are diseases that require immediate notification according to International Health Regulation except

- a) Leprosy
- b) Poliomyelitis
- c) Leishmaniasis
- d) Malaria

SECTION B (40MARKS)

(Answer all question in this section)

1. explain 4 roles of epidemiologist in disease prevention (4marks)
- 2 differentiate between descriptive epidemiology and analytical epidemiology using example (4 marks)
- 3 Mention any **four** notifiable diseases in Kenya. (4Marks)
4. Identify four importance of conducting disease surveillance. (4Marks)
5. Outline four sources of data for disease surveillance. (4marks)
6. Identify three methods of data collection used during disease surveillance. (3marks)
7. Highlight **three** frequency measures in epidemiology (4marks)
- 8Mention four advantages of disease surveillance. (4marks)
- 9Mention **four** types of epidemiology. 4marks)
11. Highlight **four** roles of clinician in integrated disease surveillance and response. (4marks)

SECTION C (40MARKS)

Answer all questions in this section

1. The following information is about kebele x which was collected for the year 1999:

-total average population=40000

-total number number of life v=births=4000

-Total number of deaths=400

-Total number of deaths before the age of 28 days=50

-Total number of infant deaths=200

-Number of women who died from pregnancy related causes=160

-New cases of tuberculosis=100

-All causes of tuberculosis=300

-Death from tuberculosis=60

Based on the above information calculate the following:

1. The incidence rate of tuberculosis (2 marks)

2. The period prevalence rate (2 marks)

3. Attack rate (2 marks)

4. The infant mortality rate (2 marks)

5. The maternal mortality ratio (10marks)

2. Using relevant example explains 4 levels of disease prevention
(10marks)

3. 10 patients came to you to seek treatment because they have fever and severe headache. They also informed you that there are other similar cases in their village. How do you investigate this epidemic? (10marks)

4.a) Define term disease surveillance (2marks)

b) Explain three types of disease surveillance. (6marks)

Analyze two methods of data collection. (2marks)

