JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR DIPLOMA IN COMMUNITY HEALTH AND DEVELOPMENT

1ST YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR

NAIROBI

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COURSE CODE: HDC 2122

COURSE TITLE: INTRODUCTION TO EPIDEMIOLOGY

EXAM VENUE: **STREAM: (Dip Comm Health & Dev)**

DATE: **EXAM SESSION:**

TIME: 1 1/2.00 HOURS

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Instructions:

Answer all the questions in Section A and ANY other 2 questions in Section B.

Candidates are advised not to write on the question paper.

Candidates must hand in their answer booklets to the invigilator while in the examination room.

SECTION A

1. Define epidemiology and state its uses. (3mks)
2. State the levels of disease prevention. (3mks)
3. State 3 tools of data collection during epidemic outbreak. (3mks)
4. Define: (3mks)
   a) Sporadic
   b) Endemic
   c) Pandemic
5. State 3 control methods of non-communicable diseases. (3mks)
6. Illustrate the epidemiologic triad of disease causation. (3mks)
7. Differentiate between communicable and non-communicable disease, giving one example in each case.
8. Describe the risk factors predisposing one to the non-communicable diseases. (3mks)
9. Following a research study in Kisumu County in 2011, 500 people were reported positive of diabetes. If the population in Kisumu was approximated as 65000 in 2011. Calculate the incident rate. (3mks)
10. Mention 3 ways used to assess the health status of a community.

SECTION B

1. Using epidemiologic triangle, discuss the relationship amongst host, disease agent and environment. **(20mks)**

2. The purpose of essential public/community health operation is to prevent disease through actions at various levels including Primordial, Primary, Secondary and tertiary levels. Discuss the levels of disease prevention under these levels. **(20mks)**

3. A disease outbreak or epidemic is a public health emergency requiring appropriate and timely action. Effective control of disease outbreaks depends on adequate investigation proper planning, execution of intervention and effective follow up to prevent reoccurrences. Mention and explain the stepwise process involved in disease outbreak investigation. **(20 marks)**

4. a) Define prevalence (2mks)
   Differentiate prevalence from incidence. (4mks)
   Discuss importance of prevalence. (3mks)

   b) Suppose we followed a population of 150 persons for one year, and 25 had a disease of interest at the start of follow up and another 15 new cases developed during the year. **(11mks)**

   i) What is the period prevalence for the year?

   ii) What is the point prevalence at the start of the period?

   iii) What is the cumulative incidence for the one year period?