



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF
ENVIRONMENTAL HEALTH
3rd YEAR 1st SEMESTER 2022/2023 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: HCB 1309

COURSE TITLE: COMMUNICABLE DISEASE CONTROL AND PREVENTIONS

EXAM VENUE: STREAM: (BSc. Env. Hlth/ C.Hlth &Dvpt.)

DATE: EXAM SESSION: DEC 2022

TIME: 2.00 HOURS

Instructions:

1. Answer all questions in Section A.
2. Answer any **two** from section B. Each question carries 20 marks

Answer all questions in section A – 30 marks.

1. Airborne transmission may be the dominant form of transmission for several respiratory pathogens, including SARS-CoV-2.
 - a. Describe ways of preventing airborne diseases. *[3 marks]*
 - b. Explain the rationale of combination prevention in communicable disease control. *[3 marks]*
2. About 60% of emerging infectious diseases that are reported globally are Zoonoses.
 - a. Define zoonosis and . *[2 marks]*
 - b. Explain why prevention and control zoonotic infections is a public health priority *[4 marks]*
3. Explain how the following interventions may enable disease prevention and control.
 - a. Health education and promotion *[2 marks]*
 - b. Handwashing *[2 marks]*
 - c. Screening *[2 marks]*
4. Describe the public health importance of Emerging infectious diseases (EIDs) *[6 marks]*
5. Explain the “One Health Approach” to Prevent Emergence and Spread of Emerging Zoonoses *[6 marks]*

SECTION B – 40 MARKS

Answer question ONE and any other question – 20 marks each

Question 1: Communicable diseases have emerged as emerged as a major public health threat. The increasing human vulnerability to and difficulties in controlling communicable diseases indicate their seriousness.

- a. Highlight the mechanisms of actions of any **3** communicable disease control responses used in Kenya *[6mks]*
- b. Using an appropriate example of a communicable disease, describe **3** determinants of its transmission dynamics *[9mks]*
- c. Explain how knowledge of transmission dynamics of a disease might be useful in guiding public health response *[5 marks]*

Question 2: Immunization has helped to dramatically reduce the number of vaccine preventable deaths worldwide. The Kenya Expanded Program on Immunization (KEPI) was established in 1980 with the main aim of providing immunization to target vaccine preventable diseases of public health importance in Kenya.

- a. Describe the main types of vaccines used in the KEPI program and the diseases for which they are used. *[8 marks]*
- b. Discuss **3** factors associated with low vaccine coverage in part of Kenya. *[6 marks]*

- c. Discuss how the **THREE** factors identified in (b) above might be addressed [6 marks]

Question 3: Schistosomiasis is an endemic disease around Lake Victoria.

- a. Discuss the risk factors associated with spread of schistosoma infections [6 marks]
b. Describe any **THREE** control approaches and how they are used in Kenya. [8 marks]
c. Describe any **THREE** social effects of schistosomiasis [6 marks]

Question 4: About 1.5 billion people, or 24% of the world's population are infected with soil-transmitted helminth infections. The trends and population prevalence are highly varied.

- b. Discuss the public health importance of soil transmitted infections. [10mks]
c. Highlight **FOUR** reasons why soil transmitted infections remain endemic in Kenya [10mks]