



UNIVERSITI KUALA LUMPUR  
INSTITUTE OF MEDICAL SCIENCE TECHNOLOGY

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FINAL EXAMINATION  
MARCH 2025 SEMESTER

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COURSE CODE : HDB31302  
COURSE TITLE : COMMUNITY HEALTH AND EPIDEMIOLOGY  
PROGRAMME NAME : BACHELOR OF BIOMEDICAL SCIENCE (HONOURS)  
DATE : 24 JUNE 2025  
TIME : 2:00PM - 5:00PM  
DURATION : 3 HOURS



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INSTRUCTIONS TO CANDIDATES

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1. Please read the instructions given in the question paper CAREFULLY.
2. This question paper is printed on both sides of the paper.
3. This question paper consist of TWO sections.
4. Answer ALL questions for Section A.
5. Section B consist of four questions. Answer THREE (3) questions only.
6. Please write your answer on the answer booklet provided.
7. Please answer all questions in English only.
8. Please answer MCQ/EMQ questions using OMR sheet.  *Tick if applicable*
9. Refer to the attached Formula/ Appendies.  *Tick if applicable*

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THERE ARE 6 PAGES OF QUESTIONS INCLUDING THIS PAGE

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**SECTION A (Total: 40 marks)**

**Answer ALL questions.**

**Please use the answer booklet provided.**

**Question 1**

Discuss the role of environmental risk factors in the development of non-communicable diseases (NCDs). Provide two examples of environmental factors and explain how they contribute to disease progression.

(10 marks)

**Question 2**

Analyze the impact of cardiovascular diseases (CVDs) in Malaysia. Discuss the primary risk factors and suggest two prevention strategies that can be implemented at the community level.

(10 marks)

**Question 3**

Describe the chain of infection model. Include the key components (agent, host, environment) and explain how each component contributes to the spread of communicable diseases.

(10 marks)

**Question 4**

Diseases are broadly categorized into communicable and non-communicable, based on whether they can be spread from one person to another.

- (a) Explain the differences between communicable and non-communicable diseases, and provide two examples of each communicable and non-communicable diseases.

(8 marks)

- (b) Discuss how their modes of transmission differ.

(2 marks)

## SECTION B (Total: 60 marks)

Answer THREE (3) questions only.

Please use the answer booklet provided.

## Question 1

Read the case below and answer the following questions.

A team of community health practitioners has been assigned to a semi-urban area where residents face challenges such as poor sanitation, rising non-communicable diseases (NCDs), and limited access to health education. The team is expected to assess community needs, implement appropriate interventions, and collaborate with local stakeholders to improve public health outcomes.

- (a) Define community health practice and explain its importance in public health.  
(4 marks)
- (b) Identify and briefly explain two roles of community health practitioners in improving health in the given area.  
(4 marks)
- (c) Describe two contextual factors that might influence the success of community health programs in this setting.  
(4 marks)
- (d) Suggest two methods for assessing the health needs of the community.  
(4 marks)
- (e) Explain two benefits of involving local stakeholders in community health planning and intervention.  
(4 marks)

**Question 2**

A public health officer collects data on the number of dengue cases reported in five districts: 12, 18, 14, 21, and 15.

- (a) Calculate the mean, median, and mode of the dataset. (5 marks)
- (b) Explain what these measures (in a) indicate about the distribution of dengue cases. (5 marks)
- (c) Interpret the significance of standard deviation and interquartile range in summarizing health-related data by providing appropriate examples to support your explanation. (10 marks)

**Question 3**

Support for special populations, such as the elderly and people with disabilities, is essential for ensuring their well-being and social inclusion.

- (a) Explain the importance of support systems for the elderly. (10 marks)
- (b) Discuss strategies for improving accessibility and support for individuals with disabilities. (10 marks)

**Question 4**

Health promotion is essential for improving the well-being of individuals and communities by addressing the determinants of health and encouraging healthy behaviors.

- (a) Explain the role of health education in health promotion.

(10 marks)

- (b) Discuss the importance of addressing social determinants of health in health promotion strategies.

(10 marks)

**END OF EXAMINATION PAPER**

