



BOWEN UNIVERSITY

(OF THE NIGERIAN BAPTIST CONVENTION)

IWO, OSUN STATE.

College of Health Sciences,
Public Health Programme.

Second Semester Examination – 2023/2024 Session **Principles of Epidemiology & Disease Surveillance (PUH 202)**

Date: Saturday, 8th June, 2024; **Time:** 12:00 PM – 2:00 PM

Venue: Red Hall – COHES

INSTRUCTIONS: This paper has two sections, **follow the instruction in answering questions from each section.** *Tear out sheets of paper from your answer booklet and answer the questions from the different sections on separate sheets of paper.*

Section A – Answer All Questions in this section

1. Epidemiology is known as the basic science of public health, and just like the public health discipline itself, it is preventive, curative, and rehabilitative. Respond to the following questions on basic epidemiology appropriately:
 - a. Define epidemiology and list out its six (6) key elements. **(4 marks)**
 - b. Discuss, citing relevant examples, the distribution pattern of health-related event(s) in a given population. **(6 marks)**
 - c. In a table, list out seven (7) differences between descriptive study designs and analytic study designs. **(3^{1/2} marks)**
 - d. With the aid of a diagram, present an overview of the epidemiological study designs. **(3 marks)**
 - e. State the two (2) fundamental assumptions of epidemiology. **(1 mark)**

2. There exists many theories of disease causation in history, one of which has a curious notion of 'bad vapours' coming out of certain kind of ground especially in low and swampy areas including night air as the cause of disease(s).
- What is the name of the disease causation theory described above? (1^{1/2} mark)
 - List five (5) other theories of disease causation as discussed in class. (2^{1/2} mark)
 - State the germ theory of disease causation and mention two notable scientists that were involved in establishing the theory. (3 mark)
 - Briefly discuss the contribution of John Snow and Edward Jenner in the field of epidemiology. (6 mark)
 - List out the nine (9) Bradford Hill's criteria of disease causation. (4^{1/2} mark)

Section B – Answer All Questions in this section

1. In January 2024, 150 inhabitants of the Ilaje Community attended a local festival where they were served with their local delicacies. A few hours after the event was over, the villagers reported to the health facility and presented with fever, vomiting, diarrhea, and abdominal pain. Within a few days after the first case, not less than eighty (80) persons who attended the festival presented with similar symptoms. A diagnosis of diarrhea epidemic was then made by the medical officer in charge.
- What type of epidemic can this be? (2 Marks)
 - With the aid of a diagram, describe the features of this type of epidemic. (5 Marks)
 - Highlight the steps your team will take to investigate this outbreak (5 Marks)
 - Define epidemic and endemic diseases. (5 Marks)
2. Write short notes on the following:
- IDSR flow of information. (3 Marks)
 - Active and passive Surveillance. (5 Marks)
 - Explain the impact of early reporting and delayed reporting of infectious diseases by clinicians on disease outbreak control and prevention. (10 Marks)