



BOWEN UNIVERSITY, IWO

COLLEGE OF HEALTH SCIENCES, FACULTY OF BASIC MEDICAL & HEALTH SCIENCES

B.Sc. PUBLIC HEALTH PROGRAMME

**2<sup>ND</sup> SEMESTER EXAMINATION (2022/2023 ACADEMIC SESSION)**

**PUH 202: Principles of Epidemiology & Disease Surveillance**

**EXAM TYPE: ESSAY QUESTIONS**

**DATE: SATURDAY 17<sup>TH</sup> JUNE, 2023**

**TIME ALLOWED: 2 hours**

**INSTRUCTIONS TO CANDIDATES**

1. Attempt **ALL** questions
2. All questions attract equal marks
3. Write your matriculation number **LEGIBLY** in the space provided at the back of your answer booklet and on each page used

**QUESTIONS**

1. Write short notes on the following terms;
  - i. Epidemic, endemic and pandemic diseases **5marks**
  - ii. The Epidemiological Triad **5marks**
  - iii. Modes of Disease Transmission **5marks**
  - iv. Chain of Disease Transmission **5marks**
  - v. Zoonotic Diseases **5marks**
2. There has been a recent outbreak of bacteria food poison in one of the rural communities of Osun state. The Epidemics was described as common source, point source;
  - i. With the aid of an appropriate diagramme, describe the features of this type of epidemics **10marks**
  - ii. Highlight some of the steps your team to investigate the epidemics **15marks**

3. a. Write short notes on Prevalence and Incidence Rates under the following headings;
- i. Definitions (5marks)
  - ii. Types (5marks)
  - iii. Advantages (5marks)
  - iv. Disadvantages (5marks)
- b. Describe the relationship between Prevalence, Incidence and duration of an illness (5marks)
4. Kanbuga Community had a total population of 3000 persons in 2022. A total of 300 livebirths and 100 deaths were recorded for the year in the community. Also, 10 neonatal deaths were recorded for the same year while 15 deaths were among children who were less than one year of age. Use these information to answer the following questions;
- a. What is the Crude Death Rate (CDR) for the population in 2022? 5marks
  - b. Calculate the neonatal and infant mortality rates in the population for 2022 5marks
  - c. Assuming 30 cases of diarrhea disease occurred among under-five children in the community from January to April, 2023 and 10 new cases of the disease have recently been diagnosed in the month of May. Also, assuming there are a total of 1000 under-five children in the population, calculate both the Period Prevalence (Jan-April, 2023) and Cumulative Incidence rates of diarrhea disease among under-five children for 2023 in the population 15marks