

**FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI**  
**SCHOOL OF SCIENCE**

**DEPARTMENT OF SCIENCE LABORATORY TECHNOLOGY**

**STN. 504 / MCB 515 : PRINCIPLES OF EPIDEMIOLOGY AND PUBLIC HEALTH**

**ANSWER FOUR QUESTIONS 2013/2014 HARMATTAN SEMESTER EXAMINATION 15/05/14 TIME: 3 HOURS**

**Question 1**

- (a) Define epidemiology. Explain its underlying principles and concept with regard to public health.
- (b) Write short notes on the following :
  - (i) Distribution
  - (ii) Descriptive epidemiology
  - (iii) Analytic epidemiology
  - (iv) Time characteristics

**Question 2**

- (a) What is applied epidemiology?
- (b) Differentiate between incubatory carriers and convalescent carriers.
- (c) Give examples of three diseases each that can be transmitted through the genitourinary tract and alimentary canal.

**Question 3**

- (a) Elaborate on the six steps / links that must occur before an infection / disease is considered to be present.
- (b) If a large number of individuals are equally exposed to an infectious agent, they do not all respond in the same manner? Explain.

**Question 4**

- (a) Describe the common steps taken in the epidemiologic approach / investigation.
- (b) Distinguish between prospective and retrospective types of studies.

**Question 5**

- (a) Discuss how the universal childhood vaccination programs and antibiotics can help in the international control of infectious diseases.
- (b) What role can sanitation and hygiene play in today's disease surveillance?

**Question 6**

Elaborate on how antigenic drift affects variations in organisms.