



**DEPARTMENT OF PUBLIC HEALTH,
FACULTY OF BASIC HEALTH SCIENCES,
NATIONAL OPEN UNIVERSITY OF NIGERIA, ABUJA
2024 1 EXAMINATION**

PROGRAMME: MSc. PUBLIC HEALTH

COURSE CODE: PHS818

COURSE TITLE: PUBLIC HEALTH MICROBIOLOGY AND ENTOMOLOGY

CREDIT UNITS: 2

TIME ALLOWED: 2 HOURS

ANSWER ALL QUESTIONS

SCORE = 70 MARKS

Q1a. Differentiate between prokaryotic and eukaryotic cells.

Q1b. Using a well labelled diagram, draw the structure of a bacterial cell and explain the function of each organelles.

Q1c. Write in details the steps for diagnostic isolation and identification of bacterial cells

Q2a. Define the following: Selective toxicity, therapeutic index, narrow spectrum, broad spectrum, cidal and static agents, minimal inhibitory concentration (MIC), and minimal lethal concentration.

Q2b. Write on the mechanism of action, spectrum, resistant and following antemebolites drugs.

(i) Sulfonamides (ii) Trimethoprim (iii) Isoniazid (iv) Dapsone

Q3a. Briefly describe the four major ways in which bacteria become resistant to drugs and give example of each.

Q3b. List and explain several ways in which the development of antibiotic resistant pathogens can be prevented.

Q4a. Briefly describe the following fungal infections: (i) Actinomycosis (ii) Nocardiosis (iii) Streptomyces

Q4b. How would carry out the diagnosis, treatment and prevention of the above mentioned infections.