CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE

2024/2025 HARMATTAN EXAMINATIONS

COLLEGE: NATURAL AND APPLIED SCIENCES
DEPARTMENT: BIOLOGICAL SCIENCES
PROGRAMME: MICROBIOLOGY **COURSE CODE: MCB 221**
COURSE TITLE: GENERAL MICROBIOLOGY. **COURSE UNIT: 3**
INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER FOUR QUESTIONS
TIME ALLOWED: 21/2 HRS

1 a. Describe the experiment conducted by Louis Pasteur to discredit the concept of spontaneous generation (4mks)
b. State the contributions of the following scientists to the development of microbiology;
i. Loius Pasteur ii. Robert Koch iii. Paul Ehrlich IV. Joseph Lister (8mks)
2. a. What are prokaryotic cells? (1mk)
b. List six (6) differences between eukaryotic and prokaryotic cells. (3marks)
b. Write short notes on the following;
i. shape of bacterial cell ii. Arrangements of bacterial cell iii. reproduction in bacteria iv. Spore formation in bacteria (8marks)
3. a. What is a virus? (1mark)
b. List any six (6) characteristics of viruses (3marks)
c. Draw a well labeled diagram of T-even bacteriophage and state the functions of any four labeled parts. (8marks)
4 a. What is microbial variation? (1mark)
b. List and explain the five (5) stages of viral replication. (5marks)
c. Write short notes on the following;
i. Taxonomy ii. Classification iii. Nomenclature (6mks)
5.a. Draw a well labeled diagram of a bacterial cell. (2mks)
b. List and state a function of any six (6) organelles in a prokaryotic cell. (6marks)
c. Differentiate between gram positive and gram negative bacteria. (4marks)
6. a. List and explain the four (4) classes of fungi. (4marks)
b. Write short notes on the following;
i. growth of fungi ii. Sexual reproduction in fungi iii. Asexual reproduction in fungi iv. Nutrition in Fungi. (8marks)
7. a. What are antigens?(1mk)
b. List and explain any three (3) properties of antigens.(6mks)
c. Define the following terms;
i. Sterilization ii. Disinfection iii. Antisepsis iv. Chemotherapy v. Bacteriostatic. (5mks)