



NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91 CADASTRAL ZONE, NNAMDI AZIKIWE
EXPRESS WAY, JABI - ABUJA.
FACULTY OF SCIENCE
Department of Biological Science
2025_1 EXAMINATION

BIO 303: General Cytology

TIME: 2 Hours

CREDIT UNITS: 2

INSTRUCTION: Attempt THREE (3) questions in all. Question 1 is compulsory

1. Write explanatory notes on the following
 - a. Applications of Cytogenetics (4 marks)
 - b. The Tertiary Protein structure (6 marks)
 - c. Radioisotopes (8 marks)
 - d. Gap one phase of the cell cycle (12 marks)

- 2a. Outline eight (8) functions of the lysosome (8 marks)
b. Discuss the components of nucleic acids (12 marks)

3. Discuss the process of embryogenesis in a typical organism (20 marks)

- 4a. Explain the use of virus in the cell biology (5 marks)
b. Give a brief account of the discovery of microscopes (7 marks)
c. Explain the use of cell culture as a technique in cell biology (8 marks)

5. Explain the following substages of meiosis Prophase I
 - a. Diakinesis (6 marks)
 - b. Leptotene (7 marks)
 - c. Pachytene (7 marks)