



NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91 CADASTRAL ZONE, NNAMDI AZIKIWE
EXPRESS WAY, JABI - ABUJA.
FACULTY OF SCIENCE
Department of Biological Sciences
2023_1 POP EXAMINATION

BIO 303: General Cytology

TIME: 2 Hours

CREDIT UNITS: 2

INSTRUCTION: Answer THREE questions in all. Question 1 is compulsory

- 1a. Write briefly on water as an important constituent of the living cell (10½ marks)
- 1b. Give a brief description of the structure of the nucleic acids (12 marks)
- 1c. What are radioisotopes? (7½marks)

- 2a Enumerate 2 disadvantages of Autoradiography (2 marks)
- 2b Give a stepwise description of the autoradiography method (18 marks)

- 3a. State 3 similarities between mitosis and meiosis (4½ marks)
- 3b. Using a table outline FIVE differences between mitosis and meiosis (15½ marks)

- 4a. Outline the major events of Gap 2 phase of the cell cycle (2 marks)
- 4b. Discuss the events of the S-phase of the cell cycle (18 marks)

5. Discuss the principle and operation of the electron microscope (20 marks)