



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCE AND RESOURCE MANAGEMENT
Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
2021-2 EXAMINATIONS...

COURSE CODE: EMT407

COURSE TITLE: PRINCIPLES OF TOXICOLOGY I

CREDIT: 2 Units

TIME ALLOWED: 2 Hours

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25 marks, while the other questions carry (15) marks each.

- 1a. Write explanatory notes on Ophthalmologic Evaluations (14 marks)
- 1b. Explain Cell Culture Techniques (8 marks)
- 1c. List the three aspects of toxicology (3 marks)

- 2a. Write short note on Molecular Techniques (7 marks)
- 2b. Explain the Molecular Cloning (5 marks)
- 2c. What is cDNA and Genomic Libraries? (3 marks)

- 3a. What are Northern and Southern Blot Analyses? (7 marks)
- 3b. Explain Polymerase Chain Reaction (PCR) technique (8 marks)

- 4a. How can evaluation of Gene Expression, Regulation, and Function be done? (7 marks)
- 4b. List the most important immunochemical methods (5 marks)
- 4c. What are inhibitory antibodies? (3 marks)

- 5a. List the classes of biotoxins (4 marks)
- 5b. What are the two primary functions of biotoxins? (4 marks)
- 5c. List and explain the types of biotoxins (7 marks)