



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE**  
**2024 I EXAMINATION**

**COURSE CODE: EHS308**  
**COURSE TITLE: ENVIRONMENTAL BIOTECHNOLOGY**  
**COURSE UNITS: 2 CREDIT UNITS**  
**TIME ALLOWED: 1 ½ HOURS**  
**TOTAL SCORE: 70 MARKS**  
**INSTRUCTION: ANSWER ALL QUESTIONS**

- 1 (a) Define the term "*Genetic Engineering*" (5 Marks)  
(b) Describe two (2) methods of carrying out genetic engineering (10 Marks)  
(c) Discuss the concept of *Nanotechnology* (5 Marks)
- 2 (a) Write a short note on the application of biotechnology to remediation of contaminated sites (10 Marks)  
(b) Discuss the importance of genetic engineering drug in the treatment of resistant disease (10 Marks)  
(c) Describe the process of biofiltration (5 Marks)
- 3 (a) Define the term "*Bioremediation*" (5 Marks)  
(b) Discuss the remediation of heavy metal contaminated land (10 Marks)  
(c) Highlight the ethical and moral concerns involved in biotechnology (10 Marks)