



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE**  
**2024 1 EXAMINATION**

**COURSE CODE: EHS316**

**COURSE TITLE: IMMUNOLOGY AND IMMUNIZATION**

**COURSE UNITS: 2 CREDIT UNITS**

**TIME ALLOWED: 1½ HOURS**

**TOTAL MARKS: 70 MARKS**

**INSTRUCTION: ATTEMPT ALL QUESTIONS**

1.
  - a. What is blood group? **5 Marks**
  - b. Discuss the ABO blood group system **10 Marks**
  - c. Write short notes on Precipitation Reaction and Precipitation Reaction **10 Marks**
  
2.
  - a. Differentiate between the terms vaccine and vaccination **5 Marks**
  - b. Why is Response to a vaccine important in serological vaccine efficacy? **5 Marks**
  - c. What are immunisable diseases? **5 Marks**
  - d. Explain any five (5) immunisable diseases **10 Marks**
  
3.
  - a. What is a cold chain? **5 Marks**
  - b. Describe the process of explain cold-chain management **10 Marks**
  - c. Mention five (5) Immunological techniques **5 Marks**