



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

COURSE CODE: BIO406

COURSE TITLE: Parasitology & Immunology

CREDIT: 2 UNITS

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER NUMBER ONE (1) AND ANY OTHER TWO (2) QUESTIONS

- 1a. Briefly describe the contributions of Edward Jenner and Louis Pasteur to immunology. (3 marks)
- b. State the conditions that determine infection of a host organism by pathogens and disease outcomes. (4 marks)
- c. Mention **four (4)** ways by which antibodies inactivate antigens. (4 marks)
- d. Discuss active immunity with emphasis on its initiation, importance, advantage and disadvantages. (9 marks)
- e. Enumerate the various mucosal and surface barriers that contribute to non-specific natural innate immunity against pathogens. (10 marks)
- 2a. Outline the features of secondary immune response. (5 marks)
- b. Describe the potential modes of transmission of infections. (15 marks)
- 3a. Discuss the factors that affect the detection and measurement of antigen-antibody reactions. (8 marks)
- b. In tabular form, compare the different types of hypersensitivity with emphasis on their antibody, antigen, response time, appearance and histology with four examples. (12 marks)
- 4a. Describe the various types of traditional vaccines with examples. (8 marks)
- b. Write on agglutination and its application in determining antigen-antibody reactions. (12 marks)
- 5a. Describe the mode of operations of specific immune response to infections. (8marks)
- b. Give a detailed description of the following classes of antigens:
- Exogenous antigens (6 marks)
  - Endogenous antigens (6 marks)