



**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF MICROBIOLOGY**

FIRST SEMESTER EXAMINATION 2013/2014 SESSION

COURSE CODE: MCB411 (3 UNITS)

COURSE TITLE: IMMUNOLOGY AND IMMUNOCHEMISTRY

CLASS: 400 LEVEL

TIME ALLOWED: 1hr. 30Mins

INSTRUCTION: Answer any **four** questions in all.

- 1(a). Explain primary and secondary immune response
- 1(b). What are the advantages of secondary immune response over the primary immune response?
2. Compare and contrast the classic and mannan binding lectin pathways. (Schematic diagrams of the two pathways is important)
- 3(a). Define Immunoglobulin
- 3(b). Mention four immunoglobulins and explain their role in the defense of the body
4. Discuss Types III, II and I hypersensitivity reaction
5. Explain in details the concept of an antigen
6. Write short notes on the following:
 - (a) Hapten
 - (b) Autoimmunity
 - (c) Monoclonal Antibody
7. Write short notes on adaptive immunity.