



**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF LIFE SCIENCES
DEPARTMENT OF MICROBIOLOGY**

FIRST SEMESTER EXAMINATION 2016/2017 SESSION

COURSE CODE: MCB 411

COURSE TITLE: IMMUNOLOGY AND IMMUNOCHEMISTRY (3 UNITS)

CLASS: 400 LEVEL

TIME: 2 HOURS

Instruction: Answer question number **ONE** and any other three questions

1. Describe in details with adequate precautionary measures, how widal test can be conducted in the laboratory?
2. Explain the biological functions of immunoglobulins
3. Write an essay on types II and III hypersensitivity
4. Discuss all the pathways of complement activation
5. Describe in details antigens and antibodies reactions
- 6(a). Explain primary and secondary immune responses
- 6(b). State the advantages and disadvantages of each