



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

**FIRST SEMESTER EXAMINATION 2015/2016 SESSION**

**COURSE CODE: MCB 311**

**COURSE TITLE: GENERAL MICROBIOLOGY I (3 UNITS)**

**CLASS: 300 LEVEL**

**TIME: 2 HOURS**

**Section A**

**Instruction:** Attempt any **two (2)** questions in this section

1. (a) Mention the environmental parameters that influence the growth of bacteria  
(b) How would you classify bacterial organisms based on their optimal temperature requirements?
2. (a) Give the four similarities that exist between Eucaryotes and Procaryotes  
(b) Enumerate the taxonomic categories that are used in the classification of related organisms at the different levels of similarities
3. What are the distinguishing features between the following organelles/processes in Protozoa:  
(i) Macronucleus and micronucleus (ii) Holozoic and saprozoic nutrition  
(iii) Syngamy and autogamy (iv) Budding and binary fission

**Section B**

**Instruction:** Answer **All Questions** in this section

- (I) Label the diagram below
- (II) What is resolution?
- (III) State three ways of attaining greater resolution
- (IV) State three methods of culturing microbes
- (V) What is a fixed mount?
- (VI) State three advantages of staining in Microbiology
- (VII) What roles do iodine and alcohol play in Gram's staining.
- (VIII) Write five (5) economic importances of bacteria.

