



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

SECOND SEMESTER EXAMINATION 2014/2015 SESSION

COURSE CODE: MCB 523

COURSE TITLE: ENVIRONMENTAL MICROBIOLOGY (3 UNITS)

CLASS: 500 LEVEL

TIME: 2 HOURS

Instruction: Answer any 4 (four) questions

1. a) Discuss the microbial processes involved in the nitrogen cycle
 b) Explain the adverse effects of nitrate in the environment
2. Describe the different microbial associations in the soil and their beneficial impact on the environment
3. Describe the inter-relationships that exist between the root of plants and microorganisms
4. Describe the sulphur cycle and its economic importance
5. Discuss different techniques that can be used for the treatment of used water collected from a Pharmaceutical company. Highlight the objectives behind such treatment.
6. a) Write short notes on mineral transformation by microorganisms
 b) Discuss the mechanisms adopted by microorganisms to survive in the air.