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

SECOND SEMESTER EXAMINATION 2015/2016 SESSION

COURSE CODE: MCB 324
COURSE TITLE: MICROBIOLOGICAL TECHNIQUES (3 UNITS)
CLASS: 300 LEVEL
TIME: 2 HOURS

Instruction: Answer FOUR questions at least one from each section

SECTION A

1(a) State the methods involved in the preparation of buffer solutions

1(b) What criteria must be adopted in the selection of the proper components for achieving the desired pH of a buffer system?

2(a) Mention **five** characteristics inimical to abstract writing.

2(b) State and explain the general rules of Scientific Writing.

SECTION B

3(a) (i) Describe the spread plate technique and the flaws
(ii) How will you prepare 100 ml quantities of RDA if 39g/L quantities is the manufacturer's instruction for its reconstitution.

3(b) Calculate the viable count of biscuit samples submitted in the laboratory for analysis if 264 and 270 colonies were counted in duplicate plating when 0.5ml of 10^{-3} dilution was used.

3(c) Enumerate the advantages of lyophilized culture

4(a) (i) How are soil cultures preserved?
(ii) Describe the pair plate techniques and the precautions.

4(b) Distinguish between differential and selective medium

4(c) What are the characteristics often used as additional aid to identification of bacteria culturally?

SECTION C

5. Explain the processes involved in the identification of microorganisms

6. Explain the roles of gram reagents in the identification of bacteria.