



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF LIFE SCIENCES

DEPARTMENT OF MICROBIOLOGY

SECOND SEMESTER EXAMINATION, 2017/2018 SESSION

GENERAL MICROBIOLOGY II (MCB 321), 3 UNITS

Instructions: Answer any Five (5) questions in all. Attempt at least one question from each section.

Time: 2^{1/2} Hrs

Section A

1. Define the following: (i) Conjugation, (ii) Transformation, (iii) Transduction, (iv) Plasmid
2. Write short notes on the following: (i) Rennet, (ii) Industrial fermentation, (iii) How yoghurt is made.

Section B

3. Highlight the various properties that enable pathogens to cause disease in a host.
- 3b. Discuss the conditions that promote the establishment of human diseases by secondary pathogens.

- 4a. Write short notes with examples on the following:
 - (i) Mutualism
 - (ii) Amensalism.

- 4b. Enumerate and discuss certain conditions that could influence the occurrence of an infection in a host.

Section C

- 5a. Briefly describe the nitrogen cycle in nature.
- 5b. Define the following terms:
 - (i) Food spoilage
 - (ii) Food borne illness
 - (iii) Food borne intoxication
 - (iv) Food borne infection.
- 5c. Describe five techniques of food preservation.

Section D

6. Explain the medical importance of the following:
 - (i) Opsonin,
 - (ii) Interferon,

- (iii) Natural killer cells,
- (iv) Leukocidin,
- (v) C5a peptidase

7. What roles do the following play in protecting the individuals?

- (i) IgG,
- (ii) IgM,
- (iii) Precipitins,
- (iv) IgA,
- (v) Agglutinins