



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
DEPARTMENT OF MICROBIOLOGY
FIRST SEMESTER EXAMINATION,
2022/2023 ACADEMIC SESSION

COURSE TITLE: PATHOGENIC BACTERIOLOGY

COURSE CODE: MCB511

UNIT: 3 UNITS

INSTRUCTIONS: Answer **FIVE** questions in **All**;

Time Allowed: 2hrs 30mins

- 1 (a) List the virulence factors of *Staphylococcus aureus* and describe a disease condition caused by *Staphylococcus aureus*
- (b) How will you differentiate *Staphylococcus aureus* from *Staphylococcus epidermidis* from a clinical specimen?
- 2 Briefly, discuss the Lancefield grouping of Streptococci. List the characteristics and diseases caused by two members of the group A Streptococci.
- 3 (a) Name the possible agents of mycobacterial diseases and state how they differ from other bacteria.
- (b) Describe the Ziehl-Neelsen staining technique for Mycobacteria.
- (c) Briefly describe pulmonary tuberculosis and lepromatous leprosy.
- 4 (a) Why are members of the Enterobacteriaceae important in health?
- (b) How will you isolate and identify *Escherichia coli* from a case of cystitis?
- (c) List the pathogenic types of *Escherichia coli*.
5. List and comment briefly on host and bacterial factors that are important in host/pathogen interaction.
6. Write short notes on the following:
 - i. Chlamydial diseases
 - ii. *Helicobacter pylori*
 - iii. Milk Ring Test
 - iv. Triple Sugar Iron Test
- 7 (a) List the important species of the order Spirochaetales.
- (b) Describe primary syphilis.
- (c) How will you isolate *Salmonella enterica* from a stool specimen?