



**ELIZADE UNIVERSITY,
ILARA-MOKIN, NIGERIA**

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

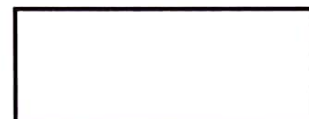
2020/2021 ACADEMIC SESSION

COURSE CODE: MCB 301

COURSE TITLE: BACTERIOLOGY

COURSE UNIT: 3 UNITS

DURATION: 2 HOURS



HOD's SIGNATURE

NAME:.....

MAT. No:.....

INSTRUCTION: ANSWER ANY TWO (2) QUESTIONS FROM EACH SECTION

Section A

1. a.) Explain the principles of Gram staining.

b) Differentiate between bacterial flagella and pili.

15 Marks

2. a.) Explain sugar fermentation using lactose and glucose

b) Explain catalase and coagulase tests using slide.

15 Marks

3. a.) Draw and label the structure of a generalized bacteria cell.

b) List the functions of pili and flagella in bacteria.

15 Marks

Section B

1a. Write concisely on the following stages of bacterial pathogenicity

i.) Adhesion to the host cells

ii.) Local proliferation /multiplication

iii.) Damage of the host tissue

iv.) Invasion

v.) Dissemination

1b. Using your knowledge of structure of bacteria, state a function each of the following bacterial structures that contributes to bacterial pathogenesis

i.) Pili (Fimbriae)

ii.) Capsules

iii.) Endospores

iv.) Glycocalyx (slime layer)

v.) Flagella

15 Marks

2 Give in details, the infection caused, pathogenesis, clinical symptoms, laboratory diagnosis and possible prevention of these microorganisms

a). *Neisseria gonorrhoea*

(b) *Mycobacterium tuberculosis*

3a Define the following terms

i.) Pathogenicity

ii.) Virulence

iii.) Incubation period

iv.) Pyaemic infection

v.) Bacteriuria

3b Describe the etiology, causes, pathogenesis, and laboratory diagnosis of Urinary tract Infections (UTI)

15 Marks