



ELIZADE UNIVERSITY,  
ILARA-MOKIN, NIGERIA

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

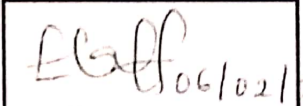
2019/2020 ACADEMIC SESSION

COURSE CODE: MCB 407

COURSE TITLE: Microbial genetics and molecular Microbiology

COURSE UNIT: 3 Units

DURATION: 2½hours



HOD's SIGNATURE

NAME:.....

MAT. No:.....

**INSTRUCTIONS** Answer any TWO (2) questions from each section

## Section A.

1. Explain each of the following terms

- i. Genetics
- ii. Genomics
- iii. Chromosome
- iv. Gene
- v. Genotype
- vi. Phenotype
- vii. Recombination

15Marks

2. List any three Scientists and describe in details the experiment performed by one of them which contributed to our understanding of genetics.

15Marks

3. Describe in details the processes involved in DNA replication

- i. write short note on transcription and translation

15Marks

## Section B.

1. a. Describe the following terms

- a. Conditional mutation
- b. Spontaneous mutation
- c. Induced mutation
- d. Point mutation
- e. Frameshift mutation

b. Compare and contrast between Missense mutation and Silent mutation

15Mark

2. With the aid of a diagram, describe how replica plating technique is used to detect and isolate an auxotrophic mutants

15Marks

3. i. Define Transformation

ii. Describe the process of transformation in a named bacterium

15Marks