



ELIZADE UNIVERSITY, ILARA-MOKIN, ONDO STATE.


**FACULTY: BASIC & APPLIED SCIENCES
DEPARTMENT: BIOLOGICAL SCIENCES
(MICROBIOLOGY UNIT)**

**FIRST SEMESTER EXAMINATION
2018/2019 ACADEMIC SESSION**

COURSE CODE: MCB 407

COURSE TITLE: MICROBIAL GENETICS AND MOLECULAR MICROBIOLOGY

DURATION: 2 hour


HOD's SIGNATURE

INSTRUCTIONS

NAME:.....
MAT. No:.....

Answer only 4 questions

1. a. State the functions of the following
 - i. mRNA
 - ii. tRNA
 - iii. rRNA
- b. Explain the process of protein synthesis
2. a. State the functions of bacterial DNA replication enzymes listed below
 - i. Topoisomerase
 - ii. Helicase
 - iii. Polymerase III
 - iv. Ligase
 - v. Primase
- b. Describe the replication process of DNA molecule
3. With the aid of an experiment, prove that DNA is responsible for bacterial transformation.
4. Explain any of the mechanisms adopted by bacteria for repair of DNA damage.
5. Describe with the aid of a diagram the ways by which bacteria can acquire DNA.
6. With the aid of an annotated diagram, explain gene regulation using *lac* operon as an example.