



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

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

SECOND SEMESTER EXAMINATION

2017/2018 ACADEMIC SESSION

COURSE CODE: BIO 412

COURSE TITLE: ENVIRONMENTAL MUTAGENESIS

DURATION: 2 HOURS

HOD's SIGNATURE

NAME:.....

MAT. No:.....

INSTRUCTIONS Attempt any three questions

Questions

1. (a) Explain any five (5) types of chemical mutagens and their mode of action.
(b) Classify mutation based on phenotypic effects.
(c) What are the characteristics of a patient suffering from Klinefelter syndrome (47XXY).
2. (a) i. Explain carcinogenesis
ii. Highlight the factors that influence carcinogenesis
(b) List and explain the stages of carcinogenesis
3. (a) Write a short notes on procedure of Ames test
(b) What are the applications of Ames test?
(c) Write short note on the following:
 - Aneuploidy
 - Euploidy
 - Base substitution
4. (a) Explain **Down syndrome** and **Turner syndrome**.
(b) Classify mutation based on molecular change
5. (a) i. Write on the different types of mutation that can occur in human body system,
ii. Illustrate and give examples in (i) above
(b) Highlight the different types of therapy used in cancer treatment