



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

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

2017/2018 ACADEMIC SESSION

COURSE CODE: BTH 405

COURSE TITLE: MEDICAL BIOTECHNOLOGY

DURATION: 2 HOURS

HOD's SIGNATURE

NAME:.....

MAT. No:.....

INSTRUCTIONS:

Answer any 3 questions

1 a) What is protein therapeutics?

b) What are the advantages of protein therapeutics over the small molecule drugs?

c) What are the different types and examples of protein therapeutics?

2. a) Describe the following using specific examples.

(i) Induced mutation (ii) Spontaneous mutation

b) Differentiate between gain of function mutation and loss of function mutation using specific examples.

c) Describe the following DNA repair mechanisms.

(i) Mismatch Repair (ii) Excision Repair

3a) What is carcinogenesis? ii) Describe the features of malignant cells.

b) Mention and briefly describe the four classes of normal regulatory genes involved in carcinogenesis.

4. a. What is Tissue Engineering?

b. Briefly describe the process of tissue engineering.

c. Briefly justify the need for the technology described above (4b).

5a. Describe the process of *in-vitro* fertilization.

b. What are the challenges of *in-vitro* fertilization.