ELIZADE UNIVERSITY,
ILARA-MOKIN, NIGERIA

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

SECOND SEMESTER EXAMINATION

2020/2021 ACADEMIC SESSION

COURSE CODE: **BTH 412**

COURSE TITLE: **ANIMAL CELL CULTURE**

DURATION: **2 HOURS**

HOD's SIGNATURE

NAME:..... .....

MAT. No:.....

INSTRUCTIONS:

Answer any three (3) questions in all

Note: All questions carry EQUAL marks!

Questions

1. (a)(i). On the basis of mode of operation list and explain the major types of bioreactor.

   (ii) What are the functional requirements that can be in place for a bioreactor to be considered good enough for an animal cell culture?

   (b) Highlight the advantages of Tissue culture flasks.

   [15 Marks]

2. (a) Describe the three (3) types of cell lines.

   (b) What are the procedures for culturing cells in the laboratory?

   (c) Differentiate with examples synthetic and natural cell culture media.

   [15 Marks]

3. (a) (i) What is your understanding of a "clean room"?

   (ii) Highlight and explain the use of major facilities and equipment that are crucial in a "clean room"

   (b) Explain vitrification and its benefits over slow freezing method

   [15 Marks]

4 (a) Explain five applications of animal tissue culture

   (b) State some practices necessary to minimize or control microbial contamination in the cell culture laboratory.

   (c) How is frozen cell line resuscitated?

   [15 Marks]

5. (a) State the phases involved during cell culture growth.

   (b) Explain mechanism of cell differentiation and fusion

   (c) Why is cell line preservation important in animal cell culture?

   [15 Marks]