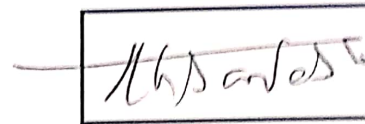




**ELIZADE UNIVERSITY, ILARA-MOKIN,  
ONDO STATE, NIGERIA**

**BASIC & APPLIED SCIENCES  
BIOLOGICAL SCIENCES  
FIRST SEMESTER EXAMINATION  
2016/2017 ACADEMIC SESSION**

**COURSE CODE: BTH410  
COURSE TITLE: ANIMAL BIOTECHNOLOGY  
DURATION: 2 HOURS 30 MINUTES**

  
**HOD's SIGNATURE**

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

**INSTRUCTIONS**  
**Answer any four (4) questions. Each question is 15 Marks.**

## QUESTIONS

1. a) State the three main functions of antibodies.  
b) i. With the aid of a diagram, explain the general structure of immunoglobins  
ii Outline and explain the isotopic form of immunoglobulin based on heavy chain
2. a) What is cell and tissue culture? Differentiate between primary culture and subculture  
b) Outline and explain five applications of cell culture
3. a) Write short note on each of the following terms:
  - i. Antigen shifting
  - ii. Autoimmune
  - iii. Allergy
  - iv. Oposonization
  - v. Cytolysis
  - vi. chemtaxisb) Explain the differences between innate and adaptive immunity
- 4 a) What is a vaccine? Differentiate between vaccination and immunization.  
b) Differentiate between attenuated and inactivated vaccines.
5. a) How was stem cell technology employed in the treatment of Cardiovascular disease treatment  
b) List and explain the general applications of animal biotechnology.
6. a) What are stem cells, list the two categories of stem cells and there sources  
b) Define the following terms;
  - I. Totipotent
  - ii. Pluripotent
  - iii. Multipotent
  - iv. Oligopotent
  - v. Unipotent