



ELIZADE UNIVERSITY, ILARA-MOKIN, ONDO STATE  
FACULTY: BASIC AND APPLIED SCIENCES

DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES

SECOND SEMESTER EXAMINATIONS: 2015/2016 ACADEMIC SESSION

COURSE CODE: BCH 206      COURSE TITLE: PROTEIN STRUCTURE AND FUNCTION

DURATION: 2.5 Hours

HOD's SIGNATURE

*M. O. Oluwalana*

TOTAL MARKS: 60

INSTRUCTIONS: ANSWER ANY 4 QUESTIONS

1. a. What are amino acids?
  - b. List three amino acid groups and give 2 examples each.
  - c. Give 4 examples each of essential and non-essential amino acids.
  - d. Mention the different bases for protein classification.
  - e. Give three sources of proteins in living organisms
  
2. a. Classify proteins based on shape.
  - a. List 3 classes of Holoprotein. Give 2 examples each. .
  - b. What are Lipoproteins? List four 4 types of Lipoproteins.
  - c. Give 2 examples of Derived Proteins.

OR

3. i. Write extensively on classification of proteins based on biological function.
  - ii a. What are complex proteins?
    - b. Mention 4 examples of conjugated proteins.
  
4. i. With the aid of a balanced equation describe.
  - a. Three (3) reactions of the alpha carboxyl group of amino acids.
  - b. Two (2) reactions of the sulfhydryl group of amino acids.
- ii. Describe one protein separation technique of your choice.

5.
  - i. With diagrammatic illustrations, describe the sequence of steps involved in protein extraction and purification.
  - ii. Describe briefly the process of extracting protein from any three of the following sources:
    - a. Animal cell and tissue.
    - b. Unicellular Organism.
    - c. Plant tissue.
    - d. Membrane.
    - e. Bacterial Host cell.
  
6. Write extensively on levels of Protein Structure