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**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2015/2016 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY**

**COURSE CODE: BIO 310**

**COURSE TITLE: PROTEINS, ENZYMES AND VITAMINS**

**DATE: 9/12/2015**

**TIME: 2.00 P.M-5.00 P.M**

**INSTRUCTIONS TO CANDIDATES:**

Answer **ALL** questions from **section A** and any other **TWO** from **section B**.

Illustrate your answers with suitable diagrams wherever necessary.

**SECTION A; (40 MARKS)**

*Answer* ***ALL*** *questions.*

1. a) Give names of the two colour reactions test for Cysteine. (2 marks)

b) Show the linkage between Y and L amino acids. (3 marks)

c) Draw the structure of aromatic amino acid. (3 marks)

 2. Draw the chemical structures of any four uncommon amino acids. (8 marks)

 3. Describe the physical properties of amino acids. (8 marks)

 4. Show how chemical reactions involving COOH group of proteins occur. (8 marks)

 5. Describe the exceptional characteristics of regulatory enzymes. (8 marks)

**SECTION B; (30 MARKS)**

*Answer any* ***TWO*** *questions. Each carries 15 Marks.*

 6. Describe sequencing of amino acids. (15 marks)

 7. Discuss source, biochemical functions and deficiency symptoms of vitamin B6. (15 marks)

 8. Write notes on the various types of enzyme inhibition. (15 marks)