

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2015/2016 ACADEMIC YEAR**

**SECOND YEAR SECOND SEMESTER EXAMINATION**

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

**COURSE CODE: BIO 212**

**COURSE TITLE: BASIC METABOLISM**

**DATE: 4TH APRIL, 2016**

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

**INSTRUCTIONS TO CANDIDATES:**

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

**SECTION A; (40 MARKS)**

1. a. Give **three** sources of amino acid pool. (3 marks)

b. Describe the mode of action of aminotransferases. (3 marks)

c. Draw the structure of ornithine. (2 marks)

 2. Describe steps in the conversion of IMP to AMP and GMP. (8 marks)

 3. Give three “by pass” steps in gluconeogenesis. (8 marks)

 4. Describe TCA cycle. (8 marks)

 5. Describe the HMP shunt. (8 marks)

**SECTION B; 30 MARKS**

 6. Discuss the De novo synthesis of fatty acids. (15 marks)

 7. Discuss how oxidative phosphorylation occurs. (15 marks)

 8. Discuss glycogenolysis. (15 marks)