



# **SOUTH EASTERN KENYA UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2016/2017**

### **FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY AND MOLECULAR BIOLOGY**

**BCH 406: NUTRITIONAL BIOCHEMISTRY**

**8<sup>TH</sup> DECEMBER, 2016**

**TIME: 10.30-12.30 P.M**

### **INSTRUCTIONS TO CANDIDATES**

- (a) Answer ALL the Questions in Section A**
- (b) Answer ANY TWO Questions in Section B**
- (c) Illustrate your answers with well labeled diagrams where appropriate**

### **Section A (30 Marks)**

1. Describe the factors that determine food acceptance. **(5 Marks)**
2. Describe the importance of carbohydrates. **(5 Marks)**
3. Describe the functions of selenium. **(4 Marks)**
4. Describe the controlling factors of the maillard reactions. **(3 Marks)**
5. Describe the dietary reference intakes. **(4 Marks)**
6. Discuss briefly the menke's disease. **(3 Marks)**
7. Discuss briefly the essential fatty acids. **(6 Marks)**

## **Section B (40 Marks)**

8. Discuss in detail the processing and packaging of foods. **(20 Marks)**
9. Discuss the food security and nutritional status in Kenya. **(20 Marks)**
10. Discuss the anthropometric and biochemical indicators in nutritional status studies. **(20 Marks)**
11. a) Describe the applications of dietary standards. **(10 Marks)**
- b) Discuss in detail the nutritional disorder kwashiorkor. **(10 Marks)**