**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE ANDTECHNOLOGY**

**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**SECOND YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR DEGREE**

**OF BACHELOR OF SCIENCE IN FOOD SECURITY**

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**2022/2023 ACADEMIC YEAR**

**COURSE CODE: AAB 2202**

**COURSE TITLE:** NUTRITIONAL DEFICIENCIES AND RELATED DISEASES

**EXAM VENUE:**

**STREAM: BSC. FOOD SECURITY**

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

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**Instructions:**

1. **Answer ALL questions in section A and ANY other 2 Questions in section B.**
2. **Candidates are advised not to write on question paper.**
3. **Candidates must hand in their answer booklets to the invigilator**

## SECTION A [30 MARKS]

**Answer ALL questions from this Section.**

1. Differentiate between mild goiter and cretinism as forms of iodine deficiency disorder( IDD) **( 2 marks)**
2. Describe the **three** common eating disorders highlighting the main difference between them **(3 marks)**
3. (a) How do "Marasmus'' and ''Kwashiorkor'' differ? **(4 marks)**
   (b) Write in detail about the (i) sources (ii) functions (iii) requirements and (iv) deficiency manifestations of calcium in the diet. **(8 marks)**
4. Describe 4 common micronutrient deficiencies prevalent in developing countries **(4 marks)**

5. Briefly explain the major lifestyle factors that are key determinants of obesity and overweight. **(4 marks)**
6. Vitamin D and Calcium deficiency are interrelated. Discuss the various symptomatic manifestation of their deficiencies in diet **( 4 marks)**

## SECTION B [40 MARKS]

**Answer ANY TWO questions from this Section.**

7. Vitamin A deficiency is the leading cause of preventable blindness in children and increases the risk of diseases and death. Elaborate on the sources, metabolic functions of Vitamin A and diseases associated with Vitamin A deficiency (VAD) **(20 marks)**
8. "*Nutrition-related diseases in the developing world are a manifestation of the intergenerational vicious cycle between undernutrition and poverty''*. Discuss the above statement by explaining the mechanism responsible for perpetuating the relationships over generations **(20 marks)**

9. Protein-energy malnutrition (PEM) is the leading cause of under five years deaths globally. Discuss PEM as a form of malnutrition and the risks factors associated, mentioning its management in children under five years old **( 20 marks)**