



# **GRETSA UNIVERSITY - THIKA**

## **UNIVERSITY EXAMINATIONS SEPTEMBER - DECEMBER 2021 SEMESTER**

### **CERTIFICATE IN NUTRITION AND DIETETICS**

**COURSE CODE: CIND 020**

**COURSE TITLE: BASIC PRINCIPLES OF HUMAN NUTRITION**

**DATE: 17 NOVEMBER 2021**

**TIME: 8:00 AM – 10:00 AM**

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#### **INSTRUCTIONS TO CANDIDATES**

1. SECTION A IS **COMPULSORY**.
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

**CAUTION:** *All exam rooms are under CCTV surveillance during the examination period.*

**SECTION A: COMPULSORY**

**MULTIPLE CHOICE QUESTIONS [1-5]**

**[ONE MARK EACH]**

1. Which of the following nutrients does not yield energy?
  - A. Carbohydrates
  - B. Water
  - C. Fat
  - D. Protein
2. Which nutrient is critical in proper reproductive development?
  - A. Fats
  - B. Lipids
  - C. Carbohydrates
  - D. Vitamin E
3. Which is a water soluble nutrient
  - A. Vitamin A
  - B. Vitamin C
  - C. Vitamin D
  - D. Vitamin E
4. Describe amino acids
  - A. Are vitamins that dissolve in fat
  - B. Are proteins the body cannot produce
  - C. The major source of energy in the body
  - D. The basic unit of a protein
5. Vitamin D–deficiency symptoms include:
  - A. Rickets and osteomalacia.
  - B. Hemorrhaging and jaundice.
  - C. Night blindness and keratomalacia.
  - D. Fibrocystic breast disease and erythrocyte hemolysis.

## SHORT ANSWER QUESTIONS: ANSWER ALL QUESTIONS

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1. Highlight five factors of that influence dietary requirement [5 Marks]
2. Discuss the two types of fibre present and their differences [4 Marks]
3. Highlight four common micronutrient deficiencies in Kenya. [4 Marks]
4. Outline five sources of soluble fibre in the diet. [5 Marks]
5. Highlight four functions of fluid in the body [4 Marks]
6. Differentiate between essential and non-essential amino acids [2 Marks]
7. Highlight three animal sources of protein. [3 Marks]
8. List five food sources of calcium [5 Marks]
9. Describe the term nutrient [2 Marks]
10. List three branches of nutrition as a science [3 Marks]

### SECTION B

[CHOOSE ANY THREE QUESTIONS]

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#### QUESTION ONE

- a) Discuss 5 functions of carbohydrates in the body [10 Marks]
- b) Discuss current awareness of nutrition in Kenya [10 Marks]

#### QUESTION TWO

- a) Elaborate factors that affect protein utilisation [10 Marks]
- b) Describe five roles of protein in the body [10 Marks]

#### QUESTION THREE

- a) Define lipids [2 Marks]
- b) Discuss the chemical structure of lipids [8 Marks]
- c) Discuss five functions of fat in the diet [10 Marks]

#### QUESTION FOUR

- a) Explain the general functions of minerals in the body [10 Marks]
- b) Discuss the function of iron in the body. List two sources [10 Marks]

#### QUESTION FIVE

- a) Discuss the 5 major food groups [10 Marks]
- b) List five major vitamins and their deficiency disorders [10 Marks]