



**TECHNICAL UNIVERSITY OF MOMBASA ( B)**

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FACULTY OF APPLIED AND HEALTH SCIENCES  
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

**UNIVERSITY EXAMINATION FOR:  
BACHELOR OF MEDICAL LABORATORY SCIENCES**

**BMLS17S/YEAR 4/SEMESTER 2**

**AFS: 4401 PRINCIPLES OF HUMAN NUTRITION**

**END OF SEMESTER EXAMINATION**

**SERIES: AUGUST 2019**

**TIME: 2 HOURS**

**Instructions to Candidates**

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions.

**This paper consists of two printed pages.**

**Mobile phones are NOT allowed in the examination room**

**QUESTION ONE**

a) Define the following terms:

i) Balanced diversified diet 2 marks

ii) Recommended dietary allowance 2 marks

b) Differentiate

i) Undernutrition from overnutrition. 4 marks

ii) Microcytic anemia from macrocytic anemia 4 marks

c) Outline five reasons why good nutrition is important for good health. 5 marks

d) Outline five factors that make good nutrition important for people suffering from HIV/AIDS.  
5 marks

e) i) State beneficial effects of essential fatty acids. 4 marks

ii) State adverse effects of essential fatty acids 4 marks

**QUESTION TWO**

a) Discuss maintenance of nitrogen balance in the body. 10 marks

b) Explain nutritional disease management. 10 marks

### **QUESTION THREE**

Discuss utilization of iron in human nutrition under the following

-Functions.

-Absorption

-Disease state

-Sources                      20 marks

### **QUESTION FOUR**

a) Discuss Kwashiorkor under the following

i) Occurrence

ii) Clinical symptoms

iii) Treatment    10 marks

b) Explain deficiency diseases associated with calcium    10 marks

### **QUESTION FIVE**

Explain four underlying causes of poor nutrition in communities.    20 marks