

**TECHNICAL UNIVERSITY OF MOMBASA**  
**FACULTY OF APPLIED AND HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DIPLOMA IN NUTRITION**  
**AND DIETETICS.**

**DND 16S/YEAR1/ SEMESTER1**

**ANH 2102 PRINCIPLES OF HUMAN NUTRITION**

**SERIES: DECEMBER 2016**

**TIME: 2HOURS**

**INSTRUCTIONS**

**ANSWER QUESTION ONE( COMPULSARY) AND ANY OTHER TWO QUESTIONS**

1)a)Define the following terms

- |   |         |
|---|---------|
| i)Nutrition   | 2 marks |
| ii)Basal metabolic rate   | 2 marks |
| iii)Essential amino acids   | 2 marks |
| iv)Balanced diet  | 2 mark  |
| b)i)Differentiate undernutrition from overnutrition                     | 4 marks |
| ii)Differentiate microcytic anemia from macrocytic anemia               | 4 marks |
| iii) Outline four examples local foods rich in carbohydrate             | 4 marks |
| c)State four important of good nutrition                                | 4 marks |
| d) State the nutritional disorder associated with lack of the following |         |
| i) calcium  |         |
| ii) Thiamine  |         |
| iii) Iodine   |         |

iv) Vitamin C

v) Vitamin A 5 marks

e) Explain the importance of lactose in human nutrition 1 mark

2) Explain factors promoting good nutrition under the following

a) Good agriculture

b) Good economy

c) Healthy environment

d) Good education

e) Healthy social and family life 15 marks

3) a) Explain the nutritional functions of the following

i) Carbohydrate 7 marks

ii) Fiber 5 marks

b) Explain the adverse effects of fiber 3 marks

4) a) Discuss the nutritional classification of proteins 6 marks

b) i) Explain four body functions that require basal metabolic rate 2 marks

ii) Explain seven factors that affect basal metabolic rate 7 marks

5) a) Explain protein energy malnutrition 10 marks

b) Outline the nutritional functions of fats 5 marks