



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
MASTER OF PUBLIC HEALTH
END-OF-SEMESTER EXAMINATIONS

UNIT CODE: MPN 716
UNIT NAME: PRINCIPLES OF HUMAN NUTRITION
DATE: 25th April 2023
TIME: THREE HOURS
START: 4:00 PM **FINISH:** 7:00 PM

INSTRUCTIONS

1. This exam is marked out of 100 marks
2. This Examination comprises TWO Sections
3. This online exam shall take THREE Hours
4. Late submission of the answers will not be accepted
5. Ensure your web-camera is on at all times during the examination period
6. No movement is allowed during the examination
7. Idling of your machine for 5 min or more will lead to lock out from the exam
8. The Learning Management System (LMS) has inbuilt integrity checks to detect cheating
9. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam
10. In case you have any questions call the the Head of Department on Tel 0720573449
11. For adverse incidences please write an email to: amiu.examinations@amref.ac.ke

SECTION A: COMPULSORY QUESTION (25 MARKS)

Q1.

a) The following information about a food was displayed on the package. All the units in g/ 100 g.

Moisture content 30; Protein 20; sugars 30 and fat 20.

Determine the energy content in 500 g of this food. (9 marks).

Use the nearest whole numbers for estimations of energy content of nutrients. Show all your working.

b) A man engaged in moderate physical activity consumes two meals, each 500g, of the food in a) above daily. Explain whether the man gets adequate, inadequate or too much energy or not (6 marks).

c) Explain the hormonal control of blood glucose levels (10 marks)

SECTION B: ANSWER ANY THREE QUESTIONS FROM THIS SECTION

Q2. Elaborate on the consequences of the following in the human body:

- a) Positive energy balance and negative energy balance (15)
- b) Positive nitrogen balance and negative nitrogen balance (10)

Q3. Eating disorders is a problem predominantly affecting adolescents and young adults.

Distinguish between the occurrence of THREE different types of eating disorders. (25 marks).

Q4. Discuss the relationship between diet and the occurrence of the following conditions:

- a) Dental caries (8 marks)
- b) Osteomalacia (7 marks)
- c) Pellagra (6 marks)
- d) Megaloblastic anaemia (6 marks)

Q5.High dietary fibre diets are generally beneficial for most adults, but not for children under 5 years and pregnant women. Discuss this statement (25 marks).

Q6.Discuss the factors affecting nutrient and energy requirements in the human body during adulthood (25 marks).

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