



**AMREF INTERNATIONAL UNIVERSITY
UNIVERSITY EXAMINATIONS AUGUST 2024
SCHOOL OF PUBLIC HEALTH
FIRST YEAR SEMESTER ONE/ TWO EXAMINATION
DEPARTMENT OF COMMUNITY HEALTH
MASTER OF PUBLIC HEALTH**

MPN 716: Principles of Human Nutrition

DATE:

TIME: Three Hours

INSTRUCTIONS

1. This exam is marked out of 100 marks
2. The first question in Section A is compulsory
3. Answer an additional three (3) questions from the other five (5)
4. The exam shall take 3 hours

Section A: Compulsory question

Q1: Explain the following types of nutrition anaemia.

- a) Iron deficiency anaemia (5 marks)
- b) Haemolytic anaemia (5 marks)
- c) Macrocytic anaemia (5 marks)
- d) Microcytic anaemia (5 marks)
- e) Megaloblastic anaemia (5 marks)

Section B: Answer any THREE questions in this section

Q2. A pregnant woman engaged in moderate physical activity consumes one kg daily of a staple food that has the following composition per 100 g: Moisture – 45 g, carbohydrates – 35 g, Protein- 8 g and lipids-2 g. In addition she consumes one litre of water.

- a) Determine the total daily energy intake of the woman (12 marks).

b) Suggest some recommendations to the woman in respect to energy adequacy and the type of food she should consume in her diet to address the situation. (13 marks)

Q3: Gut microflora play an important role in human health. Evaluate the effect of diet on gut health and body's immunity and health. (25 marks)

Q4: Many people in the world are vegetarians. Evaluate the benefits and limitations of vegan diets for human beings. (25 marks)

Q5. Explain the link between frequent consumption of the following and the associated conditions:

a) Consumption of tea with the occurrence of iron deficiency anaemia. (5 marks)

b) Consumption of predominantly vegetable and plant foods with the occurrence of stunting among children under 5 years (7 marks).

c) Consumption of biscuits among children with the incidence of dental caries. (7 marks).

d) Consumption of Fresh cow milk followed by occurrence of abdominal discomfort/diarrhea among some adults. (6 marks)

Q6: Analyse the factors that affect nutrient and energy requirements during the human life cycle. (25 marks)