



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION: BACHELOR OF HUMAN NUTRITION	
QUALIFICATION CODE: 08BOHN	LEVEL: 5
COURSE CODE: IFN521S	COURSE NAME: INTRODUCTION TO FOODS, NUTRITION AND HEALTH
SESSION: NOVEMBER 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY QUESTION PAPER	
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INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly.

PERMISSIBLE MATERIALS

Scientific calculator

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Including this front page)

SECTION A

QUESTION 1

(10 MARKS)

Evaluate the following statements in each numbered section and select the most appropriate answer from the given possibilities. Write the appropriate letter next to the number of the statement/phase in the ANSWER BOOK. (Each question carries **1 mark**.)

- 1.1 Which of the following nutrient is a macronutrient:
- A. Magnesium
 - B. Folic acid
 - C. Beta-carotene
 - D. Glucose
- 1.2 Food composition databases can be used to:
- A. Calculate total nutrient intake
 - B. Assess the toxicity of food
 - C. Define nutrient needs in our body
 - D. Identify non- essential nutrients
- 1.3 At what stage does nutrition support have an impact on people living with HIV:
- A. In the early stage of HIV
 - B. In the late stage of HIV
 - C. At all stages
 - D. None of the above
- 1.4 Which of the following indicators of Sustainable Development Goals (SDG) is LESS relevant to Nutrition:
- A. Poverty
 - B. Healthy lives
 - C. Infrastructure
 - D. Hunger and malnutrition
- 1.5 An index of a person's weight with height is called:
- A. Ideal body Weight Index
 - B. Body Mass Index
 - C. Weight and Height Ratio
 - D. Desirable body weight Index
- 1.6 When comparing different food composition databases, you can observe that:
- A. They all contain the same number of data
 - B. They list the same food items
 - C. They reflect national eating patterns
 - D. They provide complete food component data

- 1.7 According to WHO, Less than ___ of salt per day may help to prevent hypertension and reduces the risk of heart disease in adults:
- A. 5 g
 - B. 10 g
 - C. 5 %
 - D. 20 %
- 1.8 Ndeshi is a healthy, active adult female who weighs 65 kg. According to the WHO, what would be her Recommended Dietary Allowance (RDA) for protein intake:
- A. 38 grams
 - B. 52 grams
 - C. 124 grams
 - D. 56 grams
- 1.9 Three (3) pieces of Chocolate-Flavoured wafer sticks contains 22 g of CHO, 3.8 g fats and 1.5 g of protein. What is the total energy from fat:
- A. 34.2 kcal
 - B. 15.2 kcal
 - C. 27.1 kcal
 - D. 44 kcal
- 1.10 Which of the following is a trace Mineral:
- A. Sodium
 - B. Iodine
 - C. Calcium
 - D. Magnesium

QUESTION 2

(10 MARKS)

Assess the following statements and decide whether they are **true or false**. Write only the number of the question and next to it indicate your answer as **true or false** in the ANSWER BOOK. (Each question carries **1 mark**)

- 2.1 Fat soluble vitamins provide energy.
- 2.2 Marasmus is caused by a lack of protein in the diet.
- 2.3 Non-heme iron needs to be chemically "reduced" from Fe^{3+} (ferric iron) to Fe^{2+} (Ferrous iron), e.g. by vitamin C, contained in fruits, to be absorbed.
- 2.4 Low height for age measures Stunting while the low weight for height measures Wasting.
- 2.5 *Rickets* is a nutritional disorder caused a lack of vitamin D in children.
- 2.6 *Pellagra* is a nutritional disorder caused by a deficiency of Riboflavin (vitamin B₂).

- 2.7 In an HIV positive child who is symptomatic and losing weight, energy intake should increase by 40- 70 % more than a healthy child.
- 2.8 A person with constipation should eat more nutrient-dense foods.
- 2.9 The typical sources of calcium include yoghurt, milk and dairy products.
- 2.10 There are only four food groups in Namibia according to the Food & Nutrition Guidelines.

SECTION B

QUESTION 3

(21 MARKS)

- 3.1 Explain the following terms and concepts:
 - 3.1.1 Micronutrient deficiencies (2)
 - 3.1.2 Energy density (2)
 - 3.1.3 Monosaccharides (2)
 - 3.1.4 Saturated fats (2)
 - 3.1.5 Malnutrition (2)
- 3.2 Potatoes, Sweet potatoes and Cassava are starchy foods which need to be cooked before eating. Explain why it is important to cook potatoes? (3)
- 3.3 *Beriberi* is a nutritional disorder caused by a lack of vitamin B₁. List and explain any three (3) forms of *beriberi*? (6)
- 3.4 Protein is macronutrient which the body needs in large quantity. According to WHO, describe two (2) theoretical methods for estimating protein needs? (2)

QUESTION 4

(23 MARKS)

- 4.1 Eddy is a 21 year old boy who is currently studying a Bachelor of Accounting at NUST. His usual diet provides an average intake of 304.5 grams of carbohydrate, 101.5 grams of protein, and 45 grams of fat.
 - 4.1.1 How many kcal does he consume? (4)
 - 4.1.2 What percentages of his kcal are consumed from each macronutrient? (3)

- 4.1.3 Is this diet in line with the recommended dietary guidelines of macronutrients? (2)
- 4.2 Job is a 19 old boy who came to the hospital complaining of bleeding gums, Loosened teeth and slow wound healing. He weighs 50 kg and his height is 169 cm.
- 4.2.1 Calculate Job's BMI? (3)
- 4.2.2 Determine the nutritional status of Job? (1)
- 4.2.3 What micronutrient deficiency is he suffering from, how can it be treated and what type of food does he need to consume? (3)
- 4.3 Discuss the importance of Nutrition Assessment. (7)

SECTION C

QUESTION 5

(18 MARKS)

- 5.1 Describe five (5) social functions of food? (5)
- 5.2 Defend the statement that no single diet can be appropriate for every human being? (3)
- 5.3 Fats serve many functions in the body. Discuss the roles of fats in the body and diet? (4)
- 5.4 Given the priority for population dietary change, there is a need for a greater understanding of factors that may affect food choices. Elaborate on how biological determinants influence what we eat, giving examples of each. (6)

QUESTION 6

(18 MARKS)

- 6.1 Differentiate between *Kwashiorkor* and *Marasmus* considering their definitions, signs and symptoms, and the main causes. (10)
- 6.2 The essential role of nutrition in the enhancement of the quality and span of life is well recognized. However, many Namibians suffer from nutritional disorders that are due to inadequate food intake, both in terms of quality and quantity. Discuss the types of food groups in Namibia and their nutritional importance? (8)

GOOD LUCK!!!