



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)
MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

MAIN EXAM

**SECOND YEAR FIRST SEMESTER EXAMINATIONS
FOR THE DEGREE
OF
BSC. HUMAN NUTRITION AND DIETETICS**

COURSE CODE: HND 203

COURSE TITLE: NUTRITION ASSESSMENT

DATE: 20/12/2023

TIME: 8:00- 10:00 AM

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in SECTION A and B
Answer only **TWO** questions in SECTION C
Read additional instructions under various sections

TIME: 2Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

SECTION A: 10 MULTIPLE CHOICE QUESTIONS EACH 1 MARK –TOTAL 10MARKS

1. Bitot's spots may indicate _____ deficiency.
 - A. vitamin A
 - B. vitamin B
 - C. vitamin C
 - D. vitamin E
2. The acronym NFPE abbreviates the following in nutrition assessment.
 - A. Nutrition Focused Patient Examination
 - B. Nutrient Focused Patient Examination
 - C. Nutrition Focused Physical Examination
 - D. Nutrient Focused Patient Examination
3. _____ is a healthy fasting blood glucose level.
 - A. ≤ 99 mg/dL (6 mmol/l.)
 - B. ≥ 99 mg/dL (6 mmol/l.)
 - C. 100 to 125 mg/dL (6.1- 6.9 mmol/l)
 - D. 126 mg/dL (7.0 mmol/l)
4. The recommended protein intake is _____ per kilogram of body weight per day.
 - A. 1.8- 2 gram
 - B. 0.8 to 1 gram
 - C. 0.6 to 0.8 gram
 - D. 0.7 to 1.2 gram
5. The following is **NOT** a method used to separate and quantify lipoproteins from the plasma sample,
 - A. sublimation
 - B. ultracentrifugation
 - C. precipitation
 - D. electrophoresis
6. What does 'Oedema +' refers to?
 - A. Pitting edema on both feet and hands
 - B. Pitting edema on both feet and ankle
 - C. Generalized bilateral pitting edema
 - D. No edema
7. Which of the following group of people is at highest risk of vitamin K deficiency.
 - A. Pregnant women
 - B. Teenagers
 - C. New borns
 - D. Old people
8. The following are causes of hypomagnesemia **EXCEPT**;
 - A. paracetamol medications.
 - B. chronic diarrhea.
 - C. malabsorption.
 - D. alcoholism.
9. Which of the following is associated with increased death from cardiovascular disease due to vascular calcification in individuals with and without chronic kidney disease?
 - A. Hyperkalemia
 - B. Hyponatremia

- C. Hypermagnesemia
- D. Hyperphosphatemia

10. The following vitamin deficiency causes metabolic alkalosis.

- A. Hypokalemia
- B. Hyponatremia
- C. Hypochloremia
- D. Hypophosphatemia

SECTION B: ANSWER ALL QUESTIONS, EACH QUESTION, 5 MARKS (30 MARKS)

11. State **SIX** areas one can examine for muscle loss during NFPE.

12.

- i. What is a 24 hour recall [1 mark]
- ii. Give **THREE** advantages of a 24 hour recall [3 marks]
- iii. Highlight **TWO** limitations of a 24 hour recall [2 marks]

13.

- i. Define anthropometry. [2 marks]
- ii. List **FOUR** ways of estimating height in adults when it cannot be measured directly? [4 marks]

14. Identify **SIX** physical findings related micronutrient deficiencies. [6 marks]

15.

- i. Define nitrogen balance. [1 mark]
- ii. Mr. Ochieng's consumed 250 grams of protein, his nitrogen in urinary urea was 120g, calculate his nitrogen balance and discuss the implications of the results from this calculation. [5 marks]

SECTION C: ANSWER ANY TWO QUESTIONS; EACH QUESTION 15 MARKS (30 MARKS)

16. You are a nutrition officer in Maternal and child health clinic (MCH). Naliaka is a pregnant woman who has just made her first prenatal visit to your clinic. Discuss Naliaka's entire nutrition assessment process upto 1 year postpartum.

[15 marks]

17. Describe the following methods of dietary assessment.

- a. Food diaries. [3 MARKS]
- b. Duplicate diet. [3 MARKS]
- c. Household measures. [3 MARKS]
- d. Weighed inventory. [3 MARKS]
- e. Food frequency questionnaires [3 MARKS]

18. Discuss the following any **FIVE** methods of body composition analysis.

[15 marks]