



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCE
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF MAY-AUGUST 2024 TRIMESTER EXAMINATIONS**

UNIT CODE: PHT 234 UNIT NAME: PRINCIPLES OF NUTRITION (MAIN EXAM)

**DATE: TUESDAY/ 6TH / AUGUST
TIME: TWO HOURS
START: 6PM STOP : 8PM**

INSTRUCTIONS (physical exams)

- 1. Do not write on this question paper**
(Marks and questions distribution as per program curriculum.)

INSTRUCTIONS (Online examinations)

1. This exam is marked out of 70 marks
2. This Examination comprises 3 Sections
3. This online exam shall take 2 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 invigilator for this exam on Tel. 0705833434 and or the Head of Department on Tel 0720491032
11. For adverse incidences please write an email to: amiu.examinations@amref.ac.ke

PART A: MCQ ANSWER ALL QUESTIONS – 30 MARKS

1. Which of these statements is true?

- A. Glycemic index (GI) measures how Fat-containing food raises blood sugar.
- B. Glycemic index (GI) measures how gluten-containing food raises blood sugar.
- C. Glycemic index (GI) measures how a carbohydrate-containing food raises blood sugar.
- D. Glycemic index (GI) measures how high calorie-containing food raises blood sugar.

2. Which of the following food constituents is not digested but is still important for our body?

- A. vitamins
- B. minerals
- C. proteins
- D. fiber

3. A mineral that the body needs to work properly is _____.

- A. Calcium
- B. Silver
- C. Gold
- D. Lead

4. According to the food pyramid, a person should obtain most of their fat from _____.

- A. Beef, chicken, and fish
- B. Vegetables oils, nuts, and fish
- C. Fats, oils, and sweets
- D. Milk, yogurt, and cheese

6. _____ Is a unit of energy that indicates the amount of energy contained in food.

- A. Nutrient

- B. Starch
- C. Calorie
- D. Cholesterol

7. Washing of peeled vegetables removes which vitamin?

- A. E
- B. D
- C. C
- D. B

8. Citrus fruits are an excellent source of _____?

- A. Calcium
- B. Vitamin c
- C. Vitamin B
- D. Vitamin A

9. Which of the following nutrients is needed to build and maintain the structural components of the body?

- A. Carbohydrates
- B. Protein
- C. Fat
- D. Fiber

10. Which of the following nutrients is known as the sunshine vitamin?

- A. Vitamin C
- B. Vitamin A
- C. Vitamin K
- D. Vitamin D

11. Food passes through the stomach directly through?

- A. The small intestines

- B. The heart
- C. The large intestines
- D. The pancreas

12. Which of these is required on food labels?

- A. total carbohydrate
- B. sugars
- C. iron
- D. All of the above

13. A diet high in saturated fats can be linked to which of the following?

- A. Kidney failure
- B. Bulimia
- C. Anorexia
- D. Cardiovascular disease

14. Your body needs vitamins and minerals because?

- A. They give the body energy
- B. They help carry out metabolic reactions
- C. They insulate the body's organs
- D. They withdraw heat from the body

15. Which food group is our body's best source of energy?

- A. Meat group
- B. Fats, Oils and Sweets
- C. Breads and Cereals
- D. Milk and Cheese

16. Which of these is added to the food label because people sometimes do not eat ENOUGH of this?

- A. Fat

- B. Calcium
- C. Sodium
- D. Cholesterol

17. The following products; milk, cheese & yogurt are important for _____?

- A. Strong Bones
- B. Teeth
- C. Muscles
- D. All of the above

18. All of the following are nutrients found in food EXCEPT _____.

- A. Vitamins
- B. proteins
- C. carbohydrates
- D. Carbnitrogen

19. The bread, cereal, rice and pasta group is a good source of _____?

- A. vitamin C
- B. Carbohydrate
- C. Calcium
- D vitamin D

20. Amylases in saliva begin the breakdown of carbohydrates into _____.

- A. Fatty Acids
- B. Simple Sugars
- C. Polypeptides
- D. Amino Acids

21. Pulses are a good source of?

- A Carbohydrates
- B Proteins
- C Fats
- D Vitamins

22. It takes around minutes for the mind to realize that the stomach is full

- A. 10 minutes
- B. 20 Minutes
- C. 15minutes
- D. 5 minutes

23. Refeeding syndrome can manifest in a variety of ways. Which is the most common form of acute deficiency?

- A. Body-fluid disturbances
- B. Blood sugar problems
- C. Potassium deficiency
- D. All the above

24. How many servings of vegetables do we need each day?

- A. 3-5
- B. 6-11
- C. 2-3
- D. 1-2

25. Which of the following are health concerns of malnutrition among older adults?

- A. Increased mortality rates.
- B. Increased risk of hospitalization.
- C. Weakened immune system
- D. All the above

26. Milk, cheese and eggs are the sources of?

- A. Vitamin C and A

- B. Vitamin A and D
- C. Vitamin C and D
- D. Vitamin B and C

27. Women should gain at least kgs during pregnancy.

- A. 10kgs
- B. 11Kgs
- C. 12kgs
- D. 15Kgs

28. Which of these statements is true?

- A. Polyunsaturated fat is a type of fat that is solid at room temperature.
- B. Polyunsaturated fat is a type of fat that is found in avocados.
- C. Polyunsaturated fat is a type of fat that is liquid at room temperature.
- D. All of the above

29. Consider the following statements: 1. Brinjal is a good source of iron. 2. Pumpkin is a good source of Vitamin A. Which of the statements given above is / are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

30. Which of these statements best explains type 2 diabetes

- A. Type 2 diabetes affects how your body transfers sugar (glucose) for energy.
- B. Type 2 diabetes affects how your body generates sugar (glucose) for energy.
- C. Type 2 diabetes affects how your body uses sugar (glucose) for energy.
- D. None of the above

PART B: ANSWER ALL QUESTIONS - 10 MARKS

1) Jerica visited your clinic today for her monthly physio review and it seems like she has had significant weight loss since you last saw her 4 weeks ago. She was diagnosed with HIV in 2020 and has been on medication.

Explain what could be causing the significant weight loss (3 marks).

2) Differentiate between **Trans-fat** and **Triglycerides** (1 mark)

3) Briefly explain the **TWO** forms of protein energy malnutrition (**PEM**)? (3 marks)

4) Illustrate the **TWO** major advantages of exclusive breastfeeding (3 marks)

5a) Define the term safety margin (1 Mark)

5b) Illustrate the difference between macronutrients and micronutrients (4 Marks)

5c) Distinguish and explain the functions of high-density lipoproteins (HDL) and low density lipoproteins (LDL). (5 Marks)

PART C: ANSWER YOUR BEST THREE QUESTIONS 10 MARKS – EACH QUESTION CARRIES 10 MARKS

1). You have been assigned to talk to Gen z's at jijenge community youth group about proper nutrition and nourishment. Using local examples explain to them factors influencing nutrition of adolescents. **(10 Marks)**

2a) What does the term Protein Energy Malnutrition mean? **(1 Mark)**

2b) Explain briefly the treatment for Protein Energy Malnutrition **(3 Marks)**

2c) Describe in details the two classification of Protein Energy Malnutrition **(6 Marks)**

3a). Explain using examples the concept of weight-gain in pregnancy **(5 Marks)**

3b). Describe sequentially what happens to the body during under-nutrition **(5 Marks)**

4a) What is food fortification **(1 Mark)**

4b) The principles of post-workout or recovery nutrition can be accounted for in a client's custom nutrition plan during recovery. As an AMIU physiotherapist who is knowledgeable in nutrition. **Explain to a new group of interns the three R's of recovery (9 Marks)**

END!