



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES
END OF SEPTEMBER- DECEMBER 2024 SEMESTER EXAMINATIONS**

COURSE CODE AND TITLE: BSN 217- HUMAN NUTRITION AND DIETETICS

DATE:

TIME: 2 HOURS

START: 9:00AM

END: 11:00AM

Instructions

- 1) This exam is out of 70
- 2) This paper has three sections: Section I: Multiple choice Questions (MCQ) (20 marks), Section II: Short answer questions (SAQ) (30 marks) and Section III: Long answer question (LAQ) (20marks)
- 3) Answer **ALL** questions in Section I and Section II and III
- 4) Answer all the questions in the examination booklets provided
- 5) Any rough work to be done at the back of the answer booklet

SECTION I: MULTIPLE CHOICE QUESTIONS (20 MARKS)

1. The primary function of dietary fiber is to: -
 - A. Provide energy
 - B. Promote bone health
 - C. Aid in digestion and prevent constipation
 - D. Build muscle tissue
2. The following is NOT a water-soluble vitamin: -
 - A. Vitamin C
 - B. Vitamin B12
 - C. Vitamin A
 - D. Vitamin B6
3. The main storage form of glucose in the human body: -
 - A. Starch
 - B. Sucrose
 - C. Glycogen
 - D. Cellulose
4. Pellagra is caused by a deficiency of vitamin: -
 - A. Thiamine
 - B. Riboflavin
 - C. Niacin
 - D. Vitamin B12
5. The nutrient most crucial for muscle growth and repair: -
 - A. Fat
 - B. Vitamin D
 - C. Protein
 - D. Carbohydrate
6. The recommended daily intake of dietary fiber for adults is: -
 - A. 5-10 grams
 - B. 15-20 grams
 - C. 25-38 grams
 - D. 40-50 grams
7. The following is NOT a function of water in the body: -
 - A. Temperature regulation
 - B. Nutrient transport
 - C. Lubricating joints
 - D. Providing energy
8. The type of fat should be minimized in the diet to reduce the risk of heart disease: -
 - A. Trans fats

- B. Monounsaturated fats
 - C. Polyunsaturated fats
 - D. Omega-3 fatty acids
9. The mineral important for bone health and blood clotting: -
- A. Iron
 - B. Magnesium
 - C. Calcium
 - D. Sodium
10. A nutrient that provides the highest amount of energy per gram is: -
- A. Carbohydrates
 - B. Protein
 - C. Fat
 - D. Water
11. The following is a symptom of protein-energy malnutrition: -
- A. Goiter
 - B. Osteoporosis
 - C. Kwashiorkor
 - D. Hypertension
12. The process of converting glucose into energy is called: -
- A. Glycolysis
 - B. Gluconeogenesis
 - C. Metabolism
 - D. Digestion
13. The following is a complete source of protein: -
- A. Rice
 - B. Beans
 - C. Eggs
 - D. Wheat
14. Excessive intake of which vitamin can be toxic to the body; -
- A. Vitamin C
 - B. Vitamin A
 - C. Vitamin B12
 - D. Vitamin B6
15. The dietary component is essential for forming the cell membrane structure is: -
- A. Protein
 - B. Lipids
 - C. Carbohydrates
 - D. Water
16. The primary role of vitamins in the body is: -

- A. Provide energy
 - B. Facilitate metabolic processes
 - C. Build muscle
 - D. Store fat
17. The following is a symptom of iron-deficiency anemia: -
- A. Bone fractures
 - B. Fatigue
 - C. Loss of vision
 - D. Increased appetite
18. The main purpose of health promotion is: -
- A. To manage disease symptoms
 - B. To reduce and control risks to health
 - C. To diagnose diseases early
 - D. To increase medication use
19. Who is known as the "Father of Nutrition and Chemistry"?
- A. Dr. James Lind
 - B. Antoine Lavoisier
 - C. Christian Eijkman
 - D. Dr. Casmir Funk
20. A common source of dietary fiber is: -
- A. Beef
 - B. Butter
 - C. Whole grains
 - D. Fish

SECTION II: SHORT ANSWER QUESTIONS 30MARKS

1. Outline functions of five (5) essential nutrients required by the human body (5 marks)
2. Explain five (5) difference between saturated and unsaturated fats (5 marks)
3. Outline five (5) health implications of a diet high in trans fats (5 marks)
4. Outline five (5) roles of protein in maintaining body structure and function (5 marks)
5. Outline five (5) principles of dietary management of diabetes mellitus (5 marks)
6. outline five (5) advantages of anthropometric measurements in assessing nutritional status (5 marks)

SECTION III: LONG ANSWER QUESTION 20 MARKS

1. Nutritional requirements must be determined in evaluation of population health.
 - i. Describe the nutritional requirements and special needs for each of the following:
 - a) Infancy and early childhood (5 marks)
 - b) Pregnant mothers (5 marks)
 - c) Lactating mothers (5 marks)
 - d) Geriatrics (5 marks)

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