

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE  
IN NURSING**

**NURS 121: NUTRITION AND HEALTH**

**STREAMS: B.Sc(NURSING) Y1S1**

**TIME: 2 HOURS**

**DAY/DATE: MONDAY 14/12/2020**

**2.30 P.M -4.30 P.M.**

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**INSTRUCTIONS:**

- Answer All Questions

**SECTION A: MULTIPLE CHOICE QUESTIONS [ONE MARK EACH] [20 MARKS]**

1. Each gram of fats will yield how many kilocalories
  - A. 4kcl
  - B. 6kcal
  - C. 9kcal.
  - D. 12kcal
2. Which of the following is a polysaccharide?
  - A. Galactose
  - B. Sucrose
  - C. Hemicellulose
  - D. Maltose
3. Which condition is associated with vitamin C deficiency?
  - A. Pellagra
  - B. Scurvy
  - C. Cretinism

- D. Beriberi
4. Which condition is related to total energy depletion, where individuals are alert, ravenous, and irritable, potentially causing cognitive impairment?
    - A. Marasmus
    - B. Underweight
    - C. Stunting
    - D. Kwashiorkor
  5. The recommended protein intake for the average healthy person is
    - A. 0.8 grams per kilogram of body weight
    - B. 1.2 grams per kilogram of body weight
    - C. 2.4 grams per kilogram of body weight
    - D. 80 grams per day
  6. Which of the following statements regarding macronutrient energy value is true?
    - A. Carbohydrate provides 9 kcal/gram consumed
    - B. Proteins provide 4 kcal/gram consumed
    - C. Fats provide 7 kcal/gram consumed
    - D. Fats provide 12 kcal/gram consumed
  7. The nutritional needs of a patient with trauma or major surgery:
    - A. Are met by fat reserves of obese individuals
    - B. Maybe two or three times greater than normal
    - C. Can be met by intravenous fluids supplemented with vitamins and minerals
    - D. Are met by glycogen reserves
  8. Unsaturated fat is found in which form at room temperature?
    - A. Liquid
    - B. Solid
    - C. Gas
    - D. None of the above
  9. All of the following are sources of calories except?
    - A. Proteins
    - B. Carbohydrates
    - C. Vitamins

- D. Fats
10. Which group of the global population is most affected by anaemia?
- A. Preschool children
  - B. Non-pregnant women
  - C. Pregnant women
  - D. Elderly
11. A healthy dietary guideline to reduce the risk of becoming overweight and obese is;
- A. Increase the consumption of fruits and vegetables, physically inactive & eat more lean meat.
  - B. Physically active, choose lean meat & increase fruits and vegetables
  - C. Decrease fruits & vegetables, be active & eat more processed meat
  - D. Drink more sugary drinks, physically active & increase processed meats
12. An RDA represents the:
- A. The highest amount of a nutrient that appears safe for most healthy people.
  - B. The lowest amount of a nutrient that will maintain a specified criterion of adequacy.
  - C. The average amount of a nutrient considered adequate to meet the known nutrient needs of practically all healthy people in a population.
  - D. The average amount of a nutrient considered adequate to meet the known nutrient needs of half of all healthy people in a population
13. If an individual has a positive energy balance, that person is more likely to:
- A. Gain weight
  - B. Lose weight
  - C. Maintain weight
  - D. Develop diabetes
14. The UNICEF model of the causes of malnutrition identifies several levels of causes: immediate, underlying and basic. Which of the following is not one of the underlying causes in the UNICEF model?
- A. Insufficient rainfall for agriculture
  - B. Inadequate access to food
  - C. Inadequate care for mothers and children

- D. Insufficient health services and an unhealthy environment
15. Which of the following nutrients is good for wound healing?
- A. Selenium
  - B. Calcium
  - C. Zinc
  - D. Iron
16. Which of the following is an important immune-boosting nutrient?
- A. Calcium
  - B. Vitamin C
  - C. Potassium
  - D. All of the above
17. Persons experiencing HIV induced diarrhoea should increase their intake of
- A. Fiber
  - B. Fluids
  - C. Fat
  - D. Proteins
18. Which of the following explains the importance of energy and macronutrients in newborns?
- A. Energy requirement per unit of body weight is less than that for adults
  - B. Energy requirement per unit of body weight is similar to that for adults
  - C. Energy requirement per unit of body weight is greater than that for adults
  - D. Nutrient requirement per unit of body weight is greater than that for adults
19. Which of the following indices is not applicable to children?
- A. Weight for age
  - B. Height for age
  - C. Weight for height
  - D. Height for weight
20. When doing diet modification, the following factors are considered except,
- A. Physiological state
  - B. Nutrition status of the patients
  - C. Disease signs and symptoms
  - D. Disease causes

**SECTION B: SHORT ESSAY QUESTIONS**

**[20 MARKS]**

1. Explain the following concepts as used in nutrition and health [6 marks]
  - i. Food security
  - ii. Food glycemic index
  - iii. Limiting amino acid
2. Explain four effects of disease on the nutrition status of an individual [4 marks]
3. Explain four conditions that predispose populations to nutrition vulnerability in emergency situations [4 marks]
4. Explain four nutrition related complications common during pregnancy [4 marks]
5. State two types of proteins in respect to their biological value [2 marks]

**SECTION C: LONG ESSAY QUESTIONS**

**[30 MARKS]**

1. Dietary fiber in an individual diet is crucial in maintaining good health. Explain five benefits of consuming dietary fibers [10 marks]
  2. Healthy diets are the cornerstone of good health. Explain five characteristics of a healthy diet. [10 marks]
  3. Malnutrition remains a major problem in developing countries. Describe the basic causes of malnutrition as stipulated in the UNICEF conceptual framework on the causes of malnutrition. [10 marks]
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