

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

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

**NURU 271: NUTRITION AND HEALTH**

**STREAMS: B.Sc (NURSING) Y2T1**

**TIME: 2 HOURS**

**DAY/DATE: .....**

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**INSTRUCTIONS:**

- Answer **ALL** questions
- Do not write anything on the question paper
- This is a **closed book exam**, no reference materials are allowed in the examination room
- **No** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely

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

1. The following are micronutrients of public health concern except?
  - A. Zinc
  - B. Folate
  - C. Iron
  - D. Iodine
2. Which of the following is the most frequently used anthropometric measure to estimate body mass?
  - A. Fat-free mass
  - B. Body fat
  - C. Body weight
  - D. Body height
3. Which of the following is not a macronutrient?
  - A. Carbohydrates
  - B. Protein
  - C. Potassium

- D. Lipids
4. Which disease is related with total energy depletion, where individuals are alert, ravenous and irritable, potentially causing cognitive impairment?
    - A. Marasmus
    - B. Underweight
    - C. Stunting
    - D. Kwashiorkor
  5. Mid Upper Arm Circumference (MUAC) estimates?
    - A. Lean muscle mass
    - B. Body fatness
    - C. Skeletal muscles mass
    - D. None of the above
  6. Deficiencies of which of the following nutrients can lead to anaemia??
    - A. Zinc and protein
    - B. Copper and iron
    - C. Vitamin D and zinc
    - D. Iodine and vitamin C
  7. Body mass index is:
    - A. Weight (kg)/height (m)
    - B. Weight (kg)/height (m)<sup>2</sup>
    - C. Weight (kg)/height (m)<sup>3</sup>
    - D. None of the above
  8. Abdominal obesity in females is defined as a waist-hip ratio greater than?
    - A. 0.7
    - B. 0.8
    - C. 0.9
    - D. 1
  9. Stunting in children is defined as:
    - A. Low weight for height
    - B. Low weight for age
    - C. Low height for age
    - D. Low height for weight
  10. Which one of the following statements is incorrect?
    - A. Rickets is the major symptom of vitamin D deficiency
    - B. Goitre is the major symptom of iodine deficiency
    - C. Beriberi is the major symptom of vitamin B2 deficiency
    - D. Scurvy is the major symptom of vitamin C deficiency
  11. Which of the following values represent the recommended daily intake of fibre per day
    - A. 35-40g
    - B. 25-30g
    - C. 15-20g
    - D. 5-10g

12. Which one of the following gut hormones is responsible for suppressing appetite
  - A. Leptin
  - B. Ghrelin
  - C. Insulin
  - D. Peptide YY
13. Which of the following is a water-soluble vitamin
  - A. Vitamin A
  - B. Vitamin C
  - C. Vitamin D
  - D. Vitamin E
14. Which of the following is not a consequence of vitamin A deficiency?
  - A. Xerophthalmia
  - B. Keratomalacia
  - C. Bitots spot
  - D. Osteomalacia
15. What do waist-to-hip circumference ratios measure?
  - A. Fat-free mass
  - B. Intra-abdominal fat and subcutaneous fat
  - C. Protein-energy malnutrition
  - D. Skeletal mass
16. The measurement of a specific biochemical status index for a micronutrient such as vitamin C is most likely to be useful in practice to estimate:
  - A. The overall quality of a person's diet
  - B. The presence or risk of a clinical deficiency, such as clinical scurvy
  - C. The tissue levels, or body status, of that nutrient
  - D. Overall health and freedom from disease
17. A BMI of 31 is considered to be which of the following??
  - A. Underweight
  - B. Normal
  - C. Overweight
  - D. Obese
18. Osteoporosis can result from a lack of sufficient amounts of which nutrients?
  - A. Iron
  - B. Folic acid
  - C. Calcium
  - D. Magnesium
19. Which of the following is a prospective method of dietary assessment?
  - A. 24-hour recall
  - B. Food record
  - C. Diet history
  - D. None of the above

20. A food contains 6g of carbohydrate, 4g of fat and 8g of protein. How many calories (kcal) does this food provide?
- A. 72
  - B. 82
  - C. 92
  - D. 102

**SECTION B: SHORT ESSAY QUESTIONS**

**[20 MARKS]**

1. Explain the following terms as used in nutrition and health [4 marks]
  - i. Food glyceic Index
  - ii. Anti-nutrients
2. Explain four (4) groups of people who are considered vulnerable to nutrition problems explaining clearly why they are considered vulnerable [4 marks]
3. Explain four (4) common nutrition problems faced in Kenya today [4 marks]
4. Explain two immediate causes of malnutrition as stipulated in the UNICEF conceptual framework on the causes of malnutrition [4 marks]
5. Iodine is considered a micronutrient of public health concern. Explain the functions of iodine in the human body [2 marks]
6. Explain any two conditions where a sodium-restricted diet may be recommended [2 marks]

**SECTION C: LONG ESSAY QUESTIONS**

**[30 MARKS]**

1. Describe five (5) strategies that can be employed in the country to fight against the rampant problem of micronutrient deficiencies [10 marks]
  2. Describe the gastrointestinal and metabolic complications associated with parenteral and enteral feeding during specialized nutrition support [10 marks]
  3. Discuss the anthropometric and biochemical methods of nutrition assessment [10 marks]
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