

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE IN HUMAN NUTRITION AND DIATETICS

HNDS 236: NUTRITION ASSESSMENT

STREAMS: B.Sc (HUMAN NUTRITION AND DIATETICS)

TIME: 2 HOURS

DAY/DATE: TUESDAY 6 /07/ 2021
AM

8.30 AM – 10.30

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 [10 MARKS]

1. Which of the following assesses body fat distribution as an indicator of health risk?
 - A. Body mass index
 - B. Waist-to-hip ratio
 - C. Percentage usual body weight
 - D. Anthropometry
2. Why might some biochemical (e.g. plasma or serum) indices of micronutrient status give misleading results in people with infections or inflammatory states?
 - A. Because the accuracy of some laboratory assays may be compromised in samples from people who are sick.
 - B. Because an acute phase reaction results in changes in inter-tissue distributions of certain micronutrients.
 - C. Because people who are sick often alter their diets, and may eat less food.
 - D. Because some metabolic pathways are altered in sick people, which changes their micronutrient requirements.

3. Which of the following is not a consequence of vitamin A deficiency?
 - A. Xerophthalmia
 - B. Keratomalacia
 - C. Bitots spot
 - D. Osteomalacia
4. What do waste-to-hip circumference ratio measure?
 - A. Fat-free mass
 - B. Intra-abdominal fat and subcutaneous fat
 - C. Protein-energy malnutrition
 - D. Skeletal mass
5. Lack of vitamin B may result in?
 - A. Weak bones
 - B. Tooth decay
 - C. Poor cellular respiration
 - D. Itchy skin.
6. Which of the following represents the Triple A concept?
 - A. Action, Analysis, Assessment
 - B. Analysis, Assessment, Action
 - C. Assessment, Analysis, Action
 - D. Action, Assessment, Analysis
7. Which of the following indices is not applicable in children?
 - A. Weight for age
 - B. Height for age
 - C. Weight for height
 - D. Height for weight
8. Which of the following is not an anthropometric method of nutrition assessment?
 - A. Head circumference
 - B. Length
 - C. Mid-Upper Arm Circumference
 - D. Blood sugar levels
9. What is a major limitation of using BMI as a method of body fat measurements?
 - A. It is not accurate measure for average people
 - B. It is more accurate than height-weight tables
 - C. It does not distinguish between fat and fat free mass
 - D. Its expensive to use
10. Reliable sources of nutrition information
 - A. Provide guidance about the most recent dietary trends
 - B. Have only medical experts to support their claims
 - C. Have embedded beliefs regarding proper nutrition and a profit motive
 - D. Provide guidance based on multiple studies and achieve scientific consensus

SECTION B: SHORT ESSAY QUESTIONS

[30 MARKS]

1. Explain the following concepts [4 marks]
 - i. Sentinel site surveillance
 - ii. Global acute malnutrition

2. Highlight four (4) sources of errors when taking anthropometric measurements in an individual [4 marks]

3. Explain four (4) challenges experienced when measuring dietary intake of the population. [4 marks]

4. Enumerate four (4) clinical manifestations of protein energy malnutrition in children. [4 marks]

5. State two (2) methods that can be used to assess energy and nutrient intake in an individual [2 marks]

6. Interpret the following nutritional status data [4 marks]
 - i. Stunting of -2.531 Z score
 - ii. A female waist/hip ratio of 0.95

7. Nutrition surveillance system is an essential instrument to the attainment of optimal community health and nutrition status. Outline two (2) main methods of community nutrition surveillance [2 marks]

8. Explain the procedure of conducting a 24 hour recall during nutrition assessment [4 marks]

9. Food security is key to the development of a nation. Elucidate two (2) dimensions of food security that should be considered during food security assessment. [2 marks]

SECTION C: LONG ESSAY QUESTIONS

[30 MARKS]

1. Malnutrition continues to impede the growth and development of many nations. Discuss the different causes of malnutrition as stipulated in the UNICEF conceptual framework on the causes of malnutrition.
[12 marks]

 2. Explain the methods that can be used to ascertain the nutrition status of an individual
[8 marks]

 3. In a community where you are working as a nutrition a program officer with an NGO, you have been assigned to carry out a survey. Describe the process of planning for a nutritional survey.
[10 marks]
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