

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DIPLOMA IN HUMAN NUTRITION
AND DIETETICS

HNDS 0134: NUTRITION IN LIFE SPAN

STREAMS: BSc. HNDS

TIME: 2 HOURS

DAY/DATE: MONDAY 14/04/2025

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS

- Answer **ALL** questions
- Do not write anything on the question paper
- 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 (20 MARKS)

1. In preconception nutrition, which mineral is especially important for men's fertility?
 - A. Iron
 - B. Magnesium
 - C. Calcium
 - D. Zinc
2. During lactation, the recommended daily caloric increase compared to pre-pregnancy is:
 - A. 200-300 calories
 - B. 300-400 calories
 - C. 400-500 calories
 - D. 500-600 calories
3. The "window of opportunity" for preventing childhood malnutrition occurs during:
 - A. School age years
 - B. First 1000 days of life
 - C. Adolescence
 - D. Early adulthood

4. Which nutrient is particularly important during adolescent growth spurts?
 - A. Vitamin C
 - B. Vitamin D
 - C. Calcium
 - D. Vitamin K
5. Early signs of malnutrition in elderly individuals often include:
 - A. Weight gain
 - B. Increased appetite
 - C. Poor wound healing
 - D. Increased muscle mass
6. During pregnancy, which trimester requires the highest increase in caloric intake?
 - A. First trimester
 - B. Third trimester
 - C. Second trimester
 - D. All trimesters require equal increases
7. In school-age children, which nutrient deficiency most commonly affects cognitive performance?
 - A. Iron
 - B. Calcium
 - C. Vitamin C
 - D. Zinc
8. The recommended duration of exclusive breastfeeding according to WHO is:
 - A. 3 months
 - B. 6 months
 - C. 9 months
 - D. 12 months
9. Which nutritional concern is most prevalent during adolescence?
 - A. Protein deficiency
 - B. Vitamin A toxicity
 - C. Sodium deficiency
 - D. Eating disorders
10. When should complementary feeding typically begin?
 - A. 3 months
 - B. 6 months

- C. 9 months
 - D. 12 months
11. Which nutrient is most critical for bone health during the elderly years?
- A. Iron
 - B. Zinc
 - C. Vitamin D
 - D. Vitamin C
12. The peak bone mass is typically achieved by:
- A. Age 15
 - B. Age 25
 - C. Age 35
 - D. Age 45
13. Adult obesity is most strongly linked to:
- A. Genetics only
 - B. Environment only
 - C. Both genetics and environment
 - D. Neither genetics nor environment
14. Which nutrient is particularly important for preventing neural tube defects in the fetus?
- A. Folic acid
 - B. Iron
 - C. Iodine
 - D. Vitamin B12
15. The recommended fluid intake for elderly individuals is:
- A. 1.5-2 liters per day
 - B. 0.5-1 liter per day
 - C. 2.5-3 liters per day
 - D. 3.5-4 liters per day
16. Which factor most significantly affects nutrient absorption in elderly individuals?
- A. Exercise level
 - B. Sleep patterns
 - C. Decreased stomach acid production
 - D. Blood pressure

17. Which nutrient becomes more critical during early childhood brain development?
- A. Vitamin C
 - B. DHA (Docosahexaenoic acid)
 - C. Vitamin K
 - D. Sodium
18. If someone is following a vegan diet, he or she consumes:
- A. No animal foods of any kind.
 - B. Eggs and milk, but no other animal foods.
 - C. Dairy, but no other animal foods.
 - D. No “red” meat.
19. A carcinogenic diet is a diet that is low in all of the following EXCEPT:
- A. Fruits and vegetables.
 - B. Antioxidants (vitamins A and C).
 - C. Whole grains and fibre.
 - D. Dietary fat.
20. A full-term pregnancy lasts about _____ weeks.
- A. 28-30
 - B. 32-36
 - C. 38-42
 - D. 44-46

SECTION B: SHORT ANSWER QUESTIONS (20 MARKS)

1. Explain two (2) essential nutritional considerations for men during the preconception period. (4 marks)
2. List down four (4) ways in which nutrition affects growth and development (4 marks)
3. Explain two (2) common nutritional problems during pregnancy and their management strategies (4 marks)
4. State four (4) advantages that breastfeeding has over formula feeding (4 marks)
5. Outline four (4) key nutritional-related strategies that adults could employ to prevent chronic diseases (4 marks)

SECTION C: LONG ANSWER QUESTIONS (30 MARKS)

1. Explain five (5) age-related changes in elderly nutrition that impact nutrient absorption and overall health. (10 marks)
2. Explain the role of five (5) key nutrients that are particularly important during adolescence. (10 marks)
3. Describe nutritional strategies that could be used to prevent childhood obesity and promote healthy eating habits. (10 marks)

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