

2916/103

**DIET THERAPY I, MEAL PLANNING
AND MANAGEMENT AND PRINCIPLES
OF HUMAN NUTRITION PRACTICE**

June/July 2023

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN NUTRITION AND DIETETICS

MODULE I

**DIET THERAPY I, MEAL PLANNING AND MANAGEMENT AND PRINCIPLES OF HUMAN
NUTRITION PRACTICE**

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of FOUR questions.

Question ONE carries 40 marks while questions 2, 3 and 4 carry 20 marks each.

Answer ALL the questions in the answer booklet provided.

Candidates should answer the questions in English.

This paper consists of 4 printed pages.

**Candidates should check the question paper to ascertain that all the
pages are printed as indicated and that no questions are missing.**

CASE STUDY I

1. *Read the case study below and answer the questions that follow.*

After being diagnosed with an enlarged thyroid, Quesi a 32 year old lady had to undergo a major surgery to correct the abnormality. Further assessment indicated low calcium and magnesium levels and she was immediately put on supplements.

Five days later while monitoring her progress, the nurse realised that Quesi had lost quite some amount of weight and she immediately initiated enteral feeding with polymeric formula to boost her nutrient intake.

It's now day nine in the hospital and Quesi has shown remarkable improvement. Resumption of oral feeding has been recommended.

- (a) Give **three** reasons for monitoring patient's progress. (6 marks)
- (b) (i) Justify why a clear liquid diet is recommended post operatively. (2 marks)
(ii) Outline **three** characteristics of a clear liquid diet. (3 marks)
- (c) List **five** functions of magnesium in the body. (5 marks)
- (d) Analyse **six** indications for use of enteral nutrition.— (6 marks)
- (e) Evaluate **four** reasons that make iodine a nutrient of public health concern. (8 marks)
- (f) Explain **five** effects of an illness on a patient's nutritional status. (10 marks)

CASE STUDY 2

2. *Read the case study below and answer the questions that follow.*

Kasyo has been posted to Masharti Ward as the new public health officer. He has been working for barely two months but he does not like the diets adopted by this community.

He visited a play group class in one of the schools over lunch hour and noticed that most of the pupils were feeding on pasta (Indommie) and soy meat balls. The pupils either carry food from home or the guardians deliver it to school.

He noted quite a number of them did not consume the meat and cited: "It has a lot of oil and makes us nauseated". "It's neither tasty"; added another.

Kasyo already imagines of a blooming danger of protein energy malnutrition and he has to plan out for an intervention.

- (a) Indicate **six** probable causes of protein energy malnutrition. (6 marks)
- (b) Mention **six** factors to consider when planning the lunch meals for these pupils. (6 marks)
- (c) Describe **four** functions of fats and oils in the body. (8 marks)

CASE STUDY 3

3. *Read the case study below and answer the questions that follow.*

It is her first day in a nutrition therapy class. Baye, a 19 year old lady is pursuing a course in nursing at the college. She can't understand most of the concepts being mentioned in this class, but the emphasis that has been placed on nutrition is vivid. Baye would want to understand it well for comprehensive patient management.

- (a) Explain the following terms to Baye:
- (i) dietetics; (2 marks)
 - (ii) standard diet; (2 marks)
 - (iii) food glyceemic index; (2 marks)
 - (iv) food exchange system; (2 marks)
 - (v) anti oxidants. (2 marks)
- (b) State **five** objectives of nutrition therapy. (5 marks)
- (c) Indicate **five** healthy lifestyles that promote proper nutrition in an individual. (5 marks)

CASE STUDY 4

4. *Read the case study below and answer the questions that follow.*

In the women's meeting, the ladies are discussing on how to improve their prowess in making home meals. Cate indicates adding tumeric and beet root in her rice dishes that makes it very colourful. Lily serves hot hibiscus tea alongside the meal and the family members are loving it.

Lucky adds rosemary in their tea but it did not go well with her son who says the tea tastes awkward. This discussion is intriguing as women seem to be adopting new methods of spicing up their meals.

Mary has not tried anything new other than the old way: "Am okay frying my food in onion and tomato," she thinks, but from the meeting proceedings, she might not have anything to report or talk about if she does not become creative. "Lemon never misses for my beef samosas though, is this part of it?", Wonders Mary.

(a) Relate the following functional foods to their health benefits:

- | | |
|---------------------|-----------|
| (i) tumeric; | (2 marks) |
| (ii) beet root; | (2 marks) |
| (iii) hibiscus tea; | (2 marks) |
| (iv) tomatoes. | (2 marks) |

(b) Highlight **four** errors that can occur in sensory evaluation as shown by Lucky's son. (4 marks)

- (c) (i) Cite an example from the case of enhancing iron bioavailability. (2 marks)
- (ii) Indicate **three** other ways of improving iron bioavailability. (6 marks)

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