

2ND SEM. 2019/20



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UNIVERSITY OF ESWATINI
FINAL EXAMINATION PAPER

PROGRAMME : **BACHELOR OF SCIENCE IN FOOD
SCIENCE, NUTRITION AND TECHNOLOGY
YEAR IV**

COURSE CODE : **FNS406/FSNT 404**

TITLE OF PAPER : **CLINICAL NUTRITION**

TIME ALLOWED : **TWO (2) HOURS**

INSTRUCTION : **ANSWER QUESTION ONE (1) AND
ANY OTHER TWO (2) QUESTIONS**

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CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

(a) Explain the purpose of the medical record in clinical nutrition. (6 Marks)

(b) Discuss the components of the ADIME format and briefly describe examples of what the different parts entail. (4x5=20 Marks)

(c) Case study: Salebona
Salebona is a 78 year old man with h/o T2DMx15y. Since his dx he had had several nutrition education interventions from RDs and nsg staff to discuss diet modifications for DM. He states that he is not following his DO and he does not plan to following it ever. Although he is supposed to receive diabetic meals in the hospital, he refuses to eat them. Instead, his family brings in food from home that is not part of his diet, including fried items and calorically-sweetened beverages, as well as additional snacks like pastries and cookies. You have talked to Salebona about his eating habits, and the effect on blood sugar control. He has stated he is not interested in this.

Describe the ADIME format for this case study. (14 Marks)

[TOTAL MARKS = 40]

QUESTION 2

(a) Clinical scenario
Sizwe is a 29 year old man who began to suffer seizures after a head trauma injury from a motorcycle accident at the age of 18. For the first 2 years after the accident, he was prescribed various anticonvulsant regimens. The combination of phenytoin (Dilantin), 300mg daily and phenobarbital, 120mg daily, has proven to be the most effective therapy to control his seizures. Sizwe has been stabilized on this regimen for the last 11 years.

Sizwe is a senior Computer programmer for a large corporation. He is 6 feet 2 inches tall and weighs 187lb. He admits to having an aversion for exercise and athletics. In his free time, he enjoys reading, playing computer games and watching television. During the past year, sizwe has broken his left femur and tibia on two separate occasions. He broke his femur when he missed the bottom stem on the stairway in his office building. Several months later he broke his tibia when he tripped over a broken branch in his yard. Sizwe recently complained to his orthopedic surgeon about hip and pelvic pain of several weeks' duration. An orthopedic examination with x-ray examination, bone scan and DXA scan revealed that Sizwe is suffering from osteomalacia. A review of Sizwe typical diet reveals a

nutritionally marginal diet that commonly includes fast foods and frozen dinners. His diet is generally deficient in fresh fruits, vegetables and dairy products.

Nutrition diagnostic statement

Food-medication interaction related to inadequate calcium and vitamin D intake while taking anticonvulsant medications as evidenced by osteomalacia.

- (i) Is osteomalacia common in young men?
- (ii) How does Sizwe's lifestyle contribute to the development of osteomalacia?
- (iii) What vitamin or mineral deficiency may have contributed to the current state of Sizwe's bone?
- (iv) Describe the food-drug interaction that has contributed to Sizwe's osteomalacia.
- (v) What medical nutrition therapy would you recommend for Sizwe?

(5x2=10 Marks)

- (b) Describe factors that interfere with iron absorption and dietary factors which play a role in iron bioavailability.

(10 Marks)

- (c) Describe the main components of the dietary advice that should be given to patients with iron deficiency anemia.

(5x2=10 Marks)

TOTAL MARKS = 30]

QUESTION 3

Describe the primary dietary goals for the following patients:

- (a) Burned patients. **(20 Marks)**

- (b) Patient with type 2 diabetes. **(10 Marks)**

TOTAL MARKS = 30]

QUESTION 4

- (a) What is the recommended dietary approach to the prevention and treatment of hypertension? **(20 Marks)**
- (b) Discuss the causes and symptoms of upper GI diseases. **(10 Marks)**

TOTAL MARKS = 30]