

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (CLINICAL NUTRITION) EXAMINATION – MARCH 2023

Date: 15th March 2023

Time: 9.00 a.m. – 12.00 noon

PAPER I – SEQ

Answer **all five (05)** questions.

Each question to be answered in a separate book.

1. A 35-year-old man is admitted to the surgical ward complaining of difficulty in tolerating feeds and diarrhoea. He had an extensive small intestinal resection 3 months ago for ischaemic bowel.
 - 1.1. List five (5) expected nutritional problems. (10 marks)
 - 1.2. State the investigations required to confirm the above nutritional problems. (20 marks)
 - 1.3. Give the pathophysiological basis for selecting those investigations. (20 marks)
 - 1.4. State the expected result for each investigation. (10 marks)
 - 1.5. Outline the suitable nutrition management plan for this patient. (40 marks)

2. You are called to see a 4-year-old child diagnosed with underlying lung disease. He has been admitted with a lower respiratory tract infection. He is on intravenous antibiotics and being managed in the high dependency unit with oxygen via nasal prongs.
This child is a diagnosed patient with severe acute undernutrition with underlying cystic fibrosis with early liver cell damage and cholestasis.
 - 2.1. Outline the aspects in the nutrition management of this child during the acute stage of the illness. (35 marks)
 - 2.2. List, giving reasons five (5) nutritional deficiencies you expect to see in this child. (25 marks)
 - 2.3. Child recovers from the illness and ready to be discharged.
Outline the advice you would give to parents on long-term nutritional management. (40 marks)

Contd.../2-

3. Miss Madavi is a 20-year-old middle-distance female professional runner, visits a nutrition clinic to obtain dietary advice to enhance her performance.

3.1. Outline the nutritional assessment of this athlete to identify adequacy of energy and micronutrient intake. (30 marks)

3.2. List two (2) appropriate ergogenic supplements to enhance her sport performance and write the prescription for one of these supplements. (20 marks)

Three months later she was diagnosed as Type-I diabetes mellitus.

3.3. List four (4) main food groups that you would consider for carbohydrate counting. (10 marks)

3.4. Outline the nutritional management considering her professional career. (40 marks)

4.

4.1. List three (3) primary causes of death in patients with enterocutaneous fistulae. (15 marks)

4.2. Define the types of enterocutaneous fistulae based on pathophysiological classification. (15 marks)

4.3. Outline the principles of management of patients with enterocutaneous fistulae. (20 marks)

4.4. Describe the benefits of Total Parenteral Nutrition (TPN) for a patient with an enterocutaneous fistulae. (30 marks)

4.5. What are the minimum conditions for the application of full enteral nutrition (EN) in a patient with enterocutaneous fistulae. (20 marks)

5. Viraj is a 60-year-old man who is in the surgical ICU following lower limb bypass surgery. He is a patient with Type II diabetes and end stage renal failure (ESRF), on haemodialysis. His body weight is 50 kg. His fluid allowance per day is 1.5 L. He is referred to you for nutritional management.

5.1. List five (5) factors that would influence his nutritional risk. (15 marks)

5.2. State the medical complications you would expect in this patient. (25 marks)

5.3.

5.3.1. Outline his nutritional therapy (30 marks)

5.3.2. Write the nutrition prescription. (30 marks)