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Barasat, Kolkata -700125

Term End Examination 2025-2026
Programme – M.Sc.(ND)-2025
Course Name – Advanced Enteral & Parenteral Nutrition
Course Code - MND10501
(Semester I)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Define enteral nutrition.

a) Intravenous feeding
b) Tube feeding via GI tract
c) Feeding through central line
d) Feeding by hand

(ii) Identify the most common route for enteral nutrition.

a) IV route
b) Oral feeding
c) Nasogastric tube
d) Subcutaneous injection

(iii) State one indication for enteral nutrition.

a) Severe dehydration
b) Oral intake not possible
c) Complete bowel obstruction
d) Renal failure

(iv) Identify the metabolic state experienced by critically ill or injured patients.

a) Hypometabolic
b) Hypermetabolic
c) Hypoglycemic
d) Isometabolic

(v) Explain the occurence if nutritional needs are unmet in a hypermetabolic patient.

a) Marasmus
b) Obesity
c) Kwashiorkor / PCM
d) Hypothermia

(vi) Select the correct gastrointestinal complication associated with malnutrition during enteral feeding.

a) Constipation
b) Gastroparesis and diarrhea
c) Hemorrhoids
d) Gastric cancer

(vii) Select the condition that may increase daily vitamin requirements.

a) Stable outpatient status
b) Mild cold
c) Hypermetabolic critical illness
d) Mild dehydration

(viii) Interpret the role of electrolytes in TPN.

a) Maintain fluid balance
b) Increase stress
c) Stimulate hunger
d) Induce fatigue

(ix) Explain the term MVI.

a) Mineral Vitamin Injection
b) Multiple vitamins injection.
c) Mixed Vegetable Infusion
d) Medical Vitamin Intake

(x) Name a restrictive surgical technique used for managing obesity

a) Roux-en-Y gastric bypass
b) Biliopancreatic diversion with duodenal switch
c) Laparoscopic sleeve gastrectomy
d) Total parenteral nutrition

(xi) Predict the minimum percentage of nutritional needs that must be met orally or enterally before stopping TPN.

a) 0.5
b) 0.75
c) 1
d) 0.6

(xii) Classify the type of IV access typically used for administering TPN.

a) Central line
b) Oral feeding
c) Subcutaneous injection
d) Epidural catheter

(xiii) Choose the correct triglycerides concentration range typically found in TPN fat emulsions.

a) 1–5%
b) 10–20%
c) 30–40%
d) 50–60%

(xiv) Select a common symptom indicating end-of-life.

a) Tachycardia
b) Anorexia
c) Weight gain
d) Improved appetite

(xv) Justify Best vein choice for catheter placement

a) External jugular vein
b) Femoral vein
c) Subclavian vein
d) Antecubital vein

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Summarize the disadvatage of End-of-life nutrition support (3)
3. Explain the indications for home enteral nutrition (HEN). (3)
4. Classify the different types of long-term enteral access and explain their key characteristics. (3)
5. Determine Bariatric surgery (3)
6. Analyze the key components and purpose of parenteral nutrition in clinical settings. (3)

OR

Differentiate the two main purposes of parenteral nutrition in patient care. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Explain the common causes of feeding tube obstruction in enteral nutrition. (5)
8. Design the nutritional requirements in HPN patients (5)
9. Summarize Home parenteral nutrition. (5)
10. Express cancer anorexia-cachexia syndrome (5)
11. List the difference between cyclic and continuous TPN (5)
12. Explain the Medical Nutrition Therapy (MNT) for Bariatric Surgery. (5)

OR

Deduce the constituents of parenteral nutrition for neonates and infants. (5)

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