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BRAINWARE UNIVERSITY

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Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2025-2026
Programme – B.Sc.(FND)-Hons-2023
Course Name – Nutrition in Critical Care
Course Code - BFD50117
(Semester V)

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) Identify the first step in nutritional screening

a) Diagnosis b) Assessment
c) Referral d) Identification

(ii) Recall BMI calculation

a) Weight x height b) Weight ÷ height^2
c) Weight ÷ height d) Height ÷ weight

(iii) Recall the full form of PG-SGA?

a) Patient-Generated Subjective Global Assessment b) Patient-Guided Subjective Global Assessment
c) Physician-Guided Standard Global Assessment d) Pre-Guided Standardized Global Assessment

(iv) Interpret the production of Glutamin from

a) Lipid b) Dipeptide
c) Haemoglobin d) Creatinine

(v) Classify micronutrient needs in critical illness.

a) Reduced b) Unchanged
c) Increased d) Eliminated

(vi) Identify the reason behind the decrease of inflammation after treating with omega-3 fatty acids.

a) Reduce fat absorption in the intestine b) Reduce nitric oxide production
c) Increase pro-inflammatory cytokines d) Suppress immune cell function

(vii) PLWHAs without symptoms require how much additional energy intake daily?

a) 0.05 b) 0.1
c) 0.2 d) 0.3

(viii) Identify the WHO's energy recommendation for HIV-infected and non-infected persons.

a) Less than 10% of total energy b) Same RDA for both

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c) 50% more for HIV-positive
d) Higher protein only

(ix) Explain why fats are important in the diet of a PLWHA.

a) Build muscles
b) Provide calcium
c) Add taste and stimulate appetite
d) Increase blood sugar

(x) Identify the tube that is inserted through the nose to the stomach

a) NJT
b) J-Tube
c) NGT
d) PEG

(xi) Select the appropriate route for unconscious patients.

a) Oral
b) Parenteral
c) Rectal
d) Sublingual

(xii) Name the nutrient that provides 9 kcal/g

a) Carbohydrate
b) Protein
c) Fat
d) Water

(xiii) Interpret what the presence of proteinuria suggests in a patient.

a) Dehydration
b) Liver dysfunction
c) Kidney damage
d) Urinary tract infection

(xiv) Explain why major burns increase resting energy expenditure.

a) Due to anemia and low BP
b) Due to fever and diarrhea
c) Due to protein catabolism and stress hormones
d) Due to high vitamin loss

(xv) Apply nutritional advice for a patient post-abdominal surgery who cannot eat for 3 days.

a) Continue fasting
b) Begin soft solids
c) Start parenteral nutrition
d) Start IV glucose only

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Group-B

(Short Answer Type Questions) 3 x 5=15

2. Explain the process and purpose of hemodialysis in kidney failure management. (3)
3. Define nutritional status and its determination. (3)
4. Analyze the concentration of various solutions that can be given safely via the peripheral vein. (3)
5. Discuss the role of nucleotides as immune enhancers. (3)
6. Differentiate between dyspepsia and functional dyspepsia. (3)

OR

Analyze the causes and prevention strategies for stress ulcers in critically ill patients. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Illustrate the use of different nutrition support strategies (oral, enteral, and parenteral) in burn patients based on burn severity and clinical condition. (5)
8. Define nutrition diagnosis (5)
9. Analyze the structure, function, and protective mechanisms of the esophagus, along with a major associated disorder. (5)
10. Prioritize the symptoms of GERD (Gastroesophageal Reflux Disease). (5)
11. Explain different modes of enteral feeding administration. (5)
12. Report the different Routes for Nutrition (5)

OR

Justify the use of Gastrostomy Tube (G-tube): (5)

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