

B.Sc. FNS (NEP) (Hons) Sem.-3 Examination

DSC-C-231T

Principles of Human Nutrition

December-2025

Time : 2-00 Hours]

[Max. Marks : 50

Question 1 Write the following

- (i) What is RDA? Explain the general principles of deriving RDA? (5 Marks)
- (ii) Explain the function of water? (5 Marks)

OR

- (i) Explain the distribution of water in human body? (5 Marks)
- (ii) Explain electrolyte balance? (5 Marks)

Question 2 Write the following

- (i) Explain health problem associated with fat? (5 Marks)
- (ii) Write a note on digestion, absorption and metabolism of carbohydrate? (5 Marks)

OR

- (i) Write a note on digestion, absorption and metabolism of protein? (5 Marks)
- (ii) Explain the role of fibre in human nutrition? (5 Marks)

Question 3 Write the following

- (i) Describe the functions, absorption, metabolism, and dietary sources of Sodium. (5 Marks)
- (ii) Write a detailed note on the functions, absorption, deficiency symptoms, and toxicity of Calcium. (5 Marks)

OR

- (i) Write a comprehensive note on *fluorosis* and discuss various strategies used for its management. (5 Marks)
- (ii) Explain the functions, food sources, and deficiencies related to Iron. (5 Marks)

Question 4 Write the following

- (i) Discuss the role of vitamin A in the body and explain the health consequences of its deficiency. (5 Marks)
- (ii) Discuss the dietary sources, absorption and metabolism of folic acid in the body. (5 Marks)

OR

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- (i) Discuss the importance of thiamine in carbohydrate metabolism and the consequences of its deficiency on the nervous and cardiovascular systems. (5 Marks)
- (ii) Discuss the dietary sources, absorption and metabolism of vitamin B12 in the body. (5 Marks)

Question 5 Attempt any ten out of fifteen

(10 Marks)

- (i) Define Neural mechanism?
- (ii) What is water intoxication?
- (iii) What is extracellular fluid?
- (iv) What is oedema?
- (v) Define chylomicron?
- (vi) What is the role of fat in body?
- (vii) What is the function of protein?
- (viii) Define crude fibre?
- (ix) State the serum potassium level observed in a hypokalemic patient.
- (x) List the dietary sources of Selenium.
- (xi) Which organ is the major storage site for Zinc in the human body?
- (xii) What is Hashimoto's syndrome?
- (xiii) Which fat soluble vitamin acts as an antioxidant?
- (xiv) Which vitamin transforms folate in to an activated form?
- (xv) Write any four sources of thiamine.

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