

**B.Sc. (Hons) FNS Semester-2 (NEP) Examination****DSC-C-103 (T)****Basic Nutrition & Nutrients****Time : 2-00 Hours]****April-2024****[Max. Marks : 50**

**Instructions:** Illustrate your answers with neat diagrams wherever necessary.

**Q. 1 Write the following**

- (i) Distinguish between Prebiotics and Probiotics. (5 Marks)
- (ii) Explain the relationship of Nutrition to health, growth and human welfare. (5 Marks)

**OR**

- (i) Define RDA and its various applications. (5 Marks)
- (ii) Explain Nutraceuticals. Also give their classification. (5 Marks)

**Q.2 Write the following**

- (i) Explain Harris's benedict method with an example. (5 Marks)
- (ii) What is the relationship between the thermogenic effect of food and physical activity? (5 Marks)

**OR**

- (i) Describe protein digestion and absorption. (5 Marks)
- (ii) Describe absorption and sources of carbohydrate. (5 Marks)

**Q. 3 Write the following**

- (i) Differentiate water soluble and fat-soluble vitamins? Explain Vitamin A sources and its functions. (5 Marks)
- (ii) List the sources, functions and deficiency of folic acid. (5 Marks)

**OR**

- (i) Explain the functions and sources of vitamin C. (5 Marks)
- (ii) Explain the deficiency of Vitamin D in children and adults in detail. (5 Marks)

**Q. 4 Write the following**

- (i) Write a note on deficiency of Iodine? (5 Marks)
- (ii) Elucidate sources & classification of Calcium? What is the role of calcium in blood clotting? (5 Marks)

**OR**

- (i) Explain factors affecting absorption of non-haeme iron? (5 Marks)
- (ii) Explain classification of Phosphorus. Explain any four functions of Phosphorus. (5 Marks)

**Q. 5 Attempt any ten out of twelve**

(10 Marks)

- (i) Bioactive compound found in tomato is \_\_\_\_\_.
- (ii) The word "nutraceutical" was coined in \_\_\_\_\_ by \_\_\_\_\_.
- (iii) \_\_\_\_\_ is the most active form of vitamin E.
- (iv) Write full form of "FOSHU"
- (v) Explain Bioelectric impedance Analysis.
- (vi) Enlist factors affecting BMR.
- (vii) Enlist types of Carbohydrates with example.
- (viii) Function of dietary fiber.
- (ix) What is hyperkalemia? Hyperkalemia is commonly seen in which diseases?
- (x) What is haemochromatosis and siderosis
- (xi) In which form copper exists in RBCs & plasma?
- (xii) Clinical manifestations of moderate & severe zinc deficiency?

— X —