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SCHOOL OF CHEMICAL AND LIFE SCIENCES
BSc (FYUP) Semester I Examination, Dec 2025

Paper Code: BBO MDC 301

Paper Title: Nutrition in Health and Disease Management

Time: 2 h

Max Marks: 45

Note: Write the roll no. at the top immediately on receipt of this question paper. Attempt all questions. All parts of the question must be attempted in continuation. Start the answer to the next question on a new page. Cite examples and draw labeled diagrams wherever necessary.

Section A (Attempt all questions)

[10x1=10 Marks]

Question 1. Answer all the following questions.

- I.** Which of the following is a non-essential nutrient?
 - a. Vitamin C
 - b. Carbohydrates
 - c. Essential amino acids
 - d. Iron
- II.** The basic structural unit of carbohydrates is:
 - a. Amino acid
 - b. Fatty acid
 - c. Monosaccharide
 - d. Nucleotide
- III.** Deficiency of Vitamin D leads to:
 - a. Scurvy
 - b. Rickets
 - c. Beriberi
 - d. Pellagra
- IV.** Growth charts are mainly used for:
 - a. Measuring blood pressure
 - b. Monitoring child development
 - c. Checking liver function
 - d. Assessing protein intake
- V.** Recommended Dietary Allowance (RDA) is based on:
 - a. Minimum requirement only
 - b. Average requirement plus safety margin
 - c. Maximum intake possible
 - d. None of the above
- VI.** Proteins are made up of fatty acids. (True/False)
- VII.** Malnutrition in mothers can lead to low birth weight in infants. (True/False)
- VIII.** Dietary fiber helps in preventing constipation. (True/False)
- IX.** RDA (mention full form)
- X.** BMI (mention full form)

Section B

Question 2. Attempt ANY THREE questions from the following.

[3x5=15]

- A. Define essential and non-essential nutrients with examples.
- B. List the major dietary sources of carbohydrates.
- C. What is malnutrition and how does it affect children?
- D. State two benefits of a balanced diet.
- E. Name any two diseases caused by deficiency of minerals

Section C

Question 3. Answer ANY TWO of the following questions.

[2x10=20]

- A. Explain the classification, structure, properties, and sources of proteins, lipids, and carbohydrates.
- B. Discuss the Recommended Dietary Allowances (RDA) and their formulation for the Reference Man and Reference Woman.
- C. Describe dietary strategies in the prevention and management of diabetes, hypertension, and obesity.

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