

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

B.Sc.NFSMD - END SEMESTER EXAMINATIONS - APRIL 2025

SEMESTER - II

**20UFMCT2003 - Nutrition - I**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Explain the functions of food and how they contribute to adequate and optimum nutrition.
2. Discuss the components of total energy requirement (TER), including basal metabolism, physical activity, and the specific dynamic action of food.
3. Discuss the regulation of blood sugar levels and the role of hormones in maintaining glucose homeostasis.
4. Analyze the role of essential fatty acids, their sources, functions, and the effects of their deficiency.
5. Discuss the different methods used to evaluate protein quality, including PER, BV, NPU, NPR, and chemical score.
6. Compare soluble and insoluble fibers, providing examples of food sources and their benefits.
7. Discuss the relationship between dietary lipids and cardiovascular diseases, explaining the impact of cholesterol and triglycerides on heart health.
8. Evaluate the concept of mutual supplementation of proteins and its importance in achieving a balanced diet.

### Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Differentiate between direct and indirect calorimetry in determining energy expenditure.
10. State the functions of carbohydrates in the human body.
11. Infer the sources and functions of cholesterol in the body.
12. Determine the importance of protein in preventing malnutrition.
13. Highlight the role of nutrition in terms of history and development.

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