



Jamballa

Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2026

VI Semester

Class : III UG

Major : Biochemistry and Biotechnology

Time: 2 hours

Maximum Marks: 60

23BBCDE2 Concepts of Nutritional Biochemistry

Course Outcomes:

At the end of the course, students will:

- CO1. Acquire the understanding of the basic concept of nutrition for maintaining normal health
- CO2. Realize the biochemical and physiological functions of macronutrients and their integrated rôle.
- CO3. Understand the significance of protein quality and assess the nutritive value of proteins.
- CO4. Recognize the importance of micronutrients and the effects of nutritional deficiencies.
- CO5. Evaluate the effects of drugs and the therapeutic role of key nutrients in maintaining health under various disease conditions.

Part - A

6 x 1 = 6

Choose the Correct Answer

1. A substance needed by the body for growth and repair is called a _____ CO1 K2
a. Nutrient b. Carbohydrate c. Calorie d. Fatty acid
2. Amylases in saliva begin the breakdown of carbohydrates into _____. CO2 K2
a. Fatty acids b. Polypeptides c. Amino acids d. Simple sugars
3. Which of these nutrients is the preferred energy source for the body? CO3 K2
a. B complex vitamins b. Carbohydrates c. Fats d. Fiber
4. What does BMI stand for? CO1 K1
a. Body Mass Indicator b. Body Measurement Index
c. Body Mass Index d. Body Measurement Indicator
5. Which of the following is NOT a guideline for good health? CO2 K1
a. Regular exercise b. Adequate sleep c. Frequent fasting d. Hydration
6. SCP stands for _____. CO3 K1
a. Single Cell Protein b. Stress Cultivated Plant
c. Somatic Cultivated Plantlet d. Soma Clonal Plants

Part - B

3 x 6 = 18

Answer ALL Questions

Each answer should not exceed 400 words or two pages

7. a. Write a brief note on energy-yielding, body-building, and protective foods. CO1 K2
(or)
7. b. Describe the major components of energy expenditure in detail. CO1 K2
8. a. Explain in detail on the role of dietary fibre in maintaining health. CO2 K2
(or)
8. b. Describe the process of digestion and absorption of proteins in the human body. CO2 K2
9. a. Summarize the sources and harmful effects of adulterants i) butter yellow ii) malachite green. CO2 K2
(or)
9. b. Review the methods used to assess protein quality with suitable examples. CO3 K2

Part - C

3 x 12 = 36

Answer ALL questions

Each answer should not exceed 800 words or four pages

10. a. Explain basal metabolic rate and analyze the factors affecting it, giving suitable examples. CO1 K2
(or)
10. b. Analyze the daily energy requirements of different categories of people in health. CO1 K2
11. a. Explain the digestion, absorption, metabolism, and storage of carbohydrates in the human body and analyze the factors that influence these processes. CO2 K2
(or)
11. b. Illustrate the sources, mode of action, and harmful effects of antivitamins and natural toxicants with suitable examples. CO2 K2
12. a. Elaborate on the physiological functions of essential fatty acids. CO2 K2
(or)
12. b. Describe the biological values of proteins and analyze their nutritional significance with suitable examples. CO2 K2