



Sambath

Avinashilingam Institute for Home Science and Higher Education for Women

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

Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12 B

Coimbatore-641 043, Tamil Nadu, India

Continuous Internal Assessment Test II – October 2024

I Semester

Class : I UG

Major : Biochemistry and Biotechnology

Time : 2 hrs

Max. marks : 60

23BBCC01 Introduction to Biochemistry and Biomolecules

Course Outcomes:

CO1: Understand the fundamental knowledge and basic concepts and principles of biochemistry

CO2: Assess about the structure and functions of biomolecules in living system

CO3: Understand the physical and chemical properties of biomolecules

CO4: To impart knowledge on the structure and biologically important complex biomolecules

CO5: To study the nature, physical and electrochemical properties of amino acids in proteins

Part A

6 x 1 = 6

Choose the correct answer

1. Which of the following is omega-6 fatty acid? CO3K2
a) oleic acid b) linoleic acid c) linolenic acid d) arachidonic acid
2. Rancidity of lipids of lipid-rich foodstuff is because of CO3K3
a) Reduction of fatty acids b) Hydrogenation of unsaturated fatty acids
c) Dehydrogenation of saturated fatty acids d) Oxidation of fatty acids
3. Which amino acid has no asymmetric carbon? CO4K4
a) Histidine b) Glycine c) α -alanine d) Threonine
4. Amino acids with aromatic side chains are CO4K3
a) Tryptophan, Asparagine, Tyrosine b) Tryptophan, Threonine, Tyrosine
c) Phenylalanine, Tryptophan, Serine d) Phenylalanine, Tyrosine, Tryptophan
5. The DNA is having characteristic absorption maximum at CO5K2
a) 240 nm b) 260 nm c) 280 nm d) 245 nm
6. Which one of the following is left handed form of DNA? CO5K3
a) A DNA b) B DNA c) C DNA d) Z DNA

Part B

3 x 6 = 18

Answer the following

Answers should not exceed 200 words or two pages

7. (a). Outline classification of lipids based on backbone structure. CO3K3
(or)
7. (b) Discuss the biological importance of leukotrienes and prostaglandins. CO3K2
8. (a) Illustrate the Colour reaction of amino acids. CO3K2
(or)
8. (b) What are peptides and peptide bond. Discuss the biological importance of glutathione and valinomycin CO4K2
9. (a) Explain the various biological functions of nucleotides. CO5K2
(or)
9. (b) Write the effect of alkali and acid on nucleic acid. CO5K3

Part C

3 x 12 = 36

Answer ALL Questions

Answer should not exceed 800 words or four pages

10. (a) Discuss the structure, chemistry, classification and biological importance of phospholipids. CO3K3
(or)
10. (b) Elaborate on chemistry and biological importance of C 29, C 28 and C 27 Steroids. CO3K3
11. (a) Explain the reactions of amino acids due to amino groups, carboxyl groups and R groups. CO3K2
(or)
11. (b) Describe in detail of the structure and classification of the standard amino acids. CO4K2
12. (a) Explain in detail on structure, types and function of RNA. CO5K2
(Or)
12. (b) Elaborate the structure of Watson and Crick model of DNA. CO5K2

Staff in-charge:

Aided Programme : Dr.S.Gayathri Devi and Dr. M. Rajeswari

SF Programme : Dr.K.V.Shalini and Dr.J. Priyanka

copies : 60 (aided)
40 (SF)