

SHRI RAMSWAROOP MEMORIAL UNIVERSITY

Problem Set-IV

Session	2018-2019 (Odd Sem.)	Semester	III
Course	B. Tech.	Subject code	BBT3009
Branch	BT	Subject Name	Biochemistry
Group	31,32	Name of Faculty member	Prof. Sanjiv Kumar Maheshwari
Unit	IV	Topic covered	Protein and Amino acid: Properties and Structure.

Note: All questions are compulsory.

Section-A Very Short Answers type questions.

(10x1=10)

1. What are amino-acids?
2. Write general formula of amino-acids.
3. Enlist two amino acids containing aromatic R group.
4. Why amino acids are called as α -amino-acids?
5. Write structure of proline.
6. Enlist bonds involved in primary structure of proteins.
7. Write chemical structure of bulkiest R group containing amino-acid.
8. Name two amino acids containing sulfur in their R group.
9. Write peptide bonds and mark phi (ϕ) and psi (ψ) bonds.
10. What are intra and inter disulphide bonds.

Section-B Short Answer type questions.

(5x4=20)

1. Write isomerism in amino acids.
2. Write short notes protein sequencing.
3. Describe zwitter-ioninc properties of amino acids.
4. How many different pK values will we expect to be for an amino-acids?

Section-C Long Answer type questions.

(2x10=20)

1. Write a detailed note Protein structure elucidation. Describe in detail about the primary structure determination.
2. Write an essay on Secondary structure of Proteins? Enlist different bonds involved in the secondary and tertiary bond formation.

Text Book / Reference Book:

1. Lubert Stryer Biochemistry (2002), WH Freeman, NewYork
2. Lehninger AL Biochemistry (1989), CBS Publication, New Delhi

(Signature of Faculty with date)

Sanjiv
03/11/18

(Signature of Director with date)

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03/11/18