ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)
PG & RESEARCH DEPARTMENT OF BIOCHEMISTRY

Subject Name: Biomolecules-II
Subject Code:BC203S
Class: I B.Sc Biochemistry
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SECTION- A

1. Define Protein.
2. Write any two essential aminoacids.
3. What is denaturation of protein?
4. Define Saponification.
5. Define emulsification.
6. Define Zwitter ion.
7. Structure of hemoglobin.
8. Give an examples of fibrous proteins.
9. Give the functions of insulin.
10. What are lipoproteins?
11. What is meant by acid number?
12. Give any one function of cephalin.
13. Name any two non-essential aminoacids.
14. What is meant by isoelectric point?
15. List out the agent that cause denaturation of proteins.
16. Mention any two biologically important peptides.
17. Mention any two functions of collagen.
18. What is the role of myoglobin?
19. What is keratin?
20. What is vasopressin?
21. Define acid number.
22. What are essential fatty acids? Give example.
23. Draw a zwitter ionic form of amino acid.
24. Give the structure of lysine and arginine.
25. What are globular proteins? Give example.
26. Give the primary structure of protein.
27. What are disulphide bonds?
28. Mention any one biological important peptides with function.
29. What are lipoproteins?
30. Define iodine number.
31. Give an example for non protein amino acid.
32. What is a peptide bond?
33. What is Van Slyke reaction?
34. What are metalloproteins?
35. What is the number of amino acid residues present in every turn inhelix?
36. Give an example for proteins having repeating primary structure?

37. Name the additional bond that maintains stability of insulin.
38. In what way vasopressin differ from oxytocin?
39. In which tissue fats are abundantly stored?
40. What type of structure present in Fibrous protein such as silkfibroin?
41. Name the liquid form of Triglycerides.
42. Which type of bonds maintains tertiary structure of protein?
43. What are essential fattyacids?
44. Name the simplest aminoacid?
45. Which aminoacid is a α-helix terminator?
46. Which aminoacid has buffering capacity?
47. Which aminoacids forms disulphide bonds?
48. Give any two essential aminoacids.
49. Define rancidity.
50. Write the Structure of hemoglobin.
51. Give examples of fibrous proteins.
52. Give the functions of insulin.

SECTION – B

1. Explain briefly on function of phospholipids.
2. Describe the Classification of amino acids.
3. Describe the primary structure of protein.
4. Give the structure and function of globular proteins.
5. Write short notes on Ramachandran plot.
6. Differentiate between cerebrosides and gangliosides.
7. Explain the structure and function of Lecithin and cephalin.
8. Write short notes on Non protein amino acids.
9. Explain the characteristics of amino acids.
10. Elaborate on the primary and secondary structure of proteins.
11. Give an account of the structure and functions of glutathione andInsulin.
12. Explain the structure and functions of lecithin, cephalin andphosphotidyl serine.
13. Write a note on derived proteins.
14. Write the reactions of protein due to involving amino group.
15. Give the structure and functions of any four biologically importantpeptides.
16. Give a short note on tertiary structure of protein.
17. Give the biological importance of proteins?
18. Explain the structure and function of glycolipids.
19. Explain the functional groups of aminoacids and peptide bond?
20. Explain N-terminal determination?
21. Write a note on Fibrous protein
22. Brieflythe function of phospholipids.
23. Give the structure and function of globular proteins.
24. What are heterolipids? Explain any one example.
25. Explain unsaturated fatty acids with its bond types.
26. Elaborate with suitable diagram the secondary structure of proteins.
27. Explain in detail the protein structure of human hemoglobin.

SECTION – C

1. Elaborate the classification of proteins based on its size, shape and function.
2. Write short notes on Colour reaction of amino acids.
3. Give a short note on structure of protein.
4. Determine the amino acid sequence by N – terminal method.
5. Write structure and functions of biologically important peptides
6. Describe the classification of lipids and write in detail aboutglycolipids.
7. Describe in detail about the classification of amino acids based onstructure.
8. Describe the classification of proteins with suitable examples.
9. Explain the Edman's method of N-terminal determination
10. Discuss the structure and functions of fibrous protein andLipoproteins.
11. Describe the structure and biological significance of cholesterol and bilesalts.
12. Give a detailed note on structural classification of amino acids.
13. Explain in detail classification of protein based on biologicalfunction.
14. Enumerate the different approaches to determine the amino acidsequence.
15. Describe the structure and functions of hemoglobin.
16. Classify lipids based on their chemical composition. Add a note onfatty acids.
17. Describe in detail the physical characteristics of amino acids.
18. Explain the general reaction of protein with suitableexample.
19. Describe the different levels of structural organization inproteins.
20. Explain the structure and function of insulin,glutathione and vasopressin
21. Explain the properties of lipids?
22. Describe the structure and significance of phospholipids?
23. Describe the primary, secondary and tertiary structure of protein?
24. Describe Globular proteins in detail.
25. Explain the various methods of protein sequencing.