

B.Sc. DEGREE (CBCSS) EXAMINATION, MAY 2015**Second Semester**Complementary Course : **ELEMENTARY BIOCHEMISTRY – II**

(Common for all programmes having Biochemistry as Complementary Subject)

[2013 Admission onwards]

Time : Three Hours

Maximum : 60 Marks

Part A (Short Answer Type Questions)*Answer all questions.**1 mark each.*

1. What are zwitter ions?
2. What is mutarotation?
3. Name two homopolysaccharides.
4. What is a sense strand?
5. What is hyperchromic effect?
6. Name a sulphur containing amino acid.
7. What is iodine number?
8. Name two purines.

(8 × 1 = 8)**Part B (Brief Answer Questions)***Answer any six questions.**2 marks each.*

9. Explain structure of triacylglycerol.
10. Write about general chemical reaction of amino acids.
11. Write a note on circular DNA.
12. Explain how can we sequence proteins.
13. Write about reducing sugars.
14. Write a short note on types of DNA.
15. Give an account of physiological function of lipids.

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16. Explain functions of Sphingolipids.
17. Write about structure of Lecithin.
18. Differentiate nucleotides and nucleosides.

(6 × 2 = 12)

Part C (Short Essay Type Questions)

Answer any four questions.

4 marks each.

19. Give an account of functions of proteins.
20. Write a note on denaturation of nucleic acids.
21. Explain Saponification number and acid number.
22. Give an account of classification and functions of Heteropolysaccharides.
23. Explain different types of RNA.
24. Explain purification reaction and colour reaction of protein.

(4 × 4 = 16)

Part D (Long Essays)

Answer any two questions.

12 marks each.

25. Describe Watson-Crick model of DNA.
26. Explain structure of proteins.
27. Explain isomerism of carbohydrates.
28. Describe chemical structure and function of cholesterol and ergosterol.

(2 × 12 = 24)