APRIL/MAY 2018

BABC15C — BIOCHEMISTRY - I

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Explain isomers with suitable example.
2. Give any two functions of carbohydrates.
3. What are neutral amino acids? Give examples.
4. Define Iso electric pH.
5. What is meant by salting out?
6. Draw a peptide bond and label it.
7. What are derived lipids?
8. To which class of lipids do triglycerides and phosphatidyl choline belong?
9. Write any two functions of nucleotides.
10. What is capping and tailing?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write any five chemical properties of fructose.

Or

(b) Give the occurrence, structure and physical properties of sucrose.

12. (a) Write short notes on the amphoteric nature of amino acids.

Or

(b) Write any five chemical properties of amino acids.

13. (a) Explain the structure of alpha helix with a neat illustration.

Or

(b) State the forces that are involved in maintaining the structure of proteins.

14. (a) Outline the classification of phospholipids lipids.

Or

(b) Explain the occurrence, chemistry and biological functions of simple lipids.

15. (a) Draw and explain the structure of tRNA.

Or

(b) Enumerate the biological role of RNA.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write down the structure, function, occurrence, physical and chemical properties of starch.

17. Discuss in detail about the classification of amino acids.

18. Write shortly on: (a) Tertiary structure of proteins (b) Denaturation of proteins.

19. Define lipids. Discuss about any ten important functions of lipids.

20. Detail on the Watson and Crick model of DNA with a diagram.

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