NOVEMBER/DECEMBER 2018

BABC15C — BIOCHEMISTRY –I

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

Write short notes on : comment.

1. How can you tell if a biological molecule is a carbohydrate?

2. What is a polysaccharide?

3. What is the basic structure of an amino acid?

4. What are acidic amino acids? Give examples.

5. What is protein structure prediction?

6. What do you mean by tertiary structure of a protein?

7. What is the Sudan IV test used for?

8. Define sap number.

9. What are known as Introns?

10. Name the unusual bases present in RNA.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a detailed account on the occurrence and physical properties of carbohydrates.

Or

(b) Explain briefly about any five chemical properties of carbohydrates.

12. (a) Give an account on the Isoelectric point and Zwitter ion concept.

Or

(b) How do aminoacids react with Ninhydrin?

13. (a) Explain the classification of proteins based on their solubility , shape and size.

Or

(b) Explain in detail about salting in and salting out properties.

14. (a) Discuss in detail about classification and functions of compound lipids.

Or

(b) Explain in detail about emulsification. Add notes on its applications.

15. (a) Explain the double helical model of DNA with illustrations.

Or

(b) Describe about biological functions of DNA.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss the biochemistry of polysaccharides and their properties.

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

18. Discuss in detail about the secondary structure of proteins with neat illustrations wherever necessary.

19. Discuss the functions of bile acids and bile salts in human metabolism. Add a note on biological functions of simple lipids.

20. Elaborately discuss about the structure, types and functions of RNA.

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