

APRIL/MAY 2019

**BABC15C — BIOCHEMISTRY – I**

Time : Three hours

Maximum : 75 marks



**SECTION A — (10 × 2 = 20 marks)**

Answer ALL questions.

Which carbon is considered the anomeric carbon?

2. Give the Haworth's projection formula of glucose.
3. What are the neutral amino acids? Give examples.
4. Why is the order of amino acids in a protein important?
5. What is salting out?
6. What are proteins?
7. What are phospholipids? Give examples.
8. What are the functions of bile acids?
9. Explain the functions of tRNA.
10. What are Histones?



SECTION B — (5 × 5 = 25 marks)

Answer ALL questions

Each answer not to exceed 200 words

11. (a) Write a detailed account on Monosaccharides.

Or

- (b) Explain briefly about polysaccharides.

12. (a) Give an account on the amphoteric nature of aminoacids.

Or

- (b) Explain the common properties of amino acids in detail.

13. (a) Explain the tertiary and quaternary structure of proteins.

Or

- (b) Explain the biological importance of proteins.

14. (a) Discuss in detail about chemical nature of derived lipids.

Or

- (b) Explain in detail about chemistry of steroids and its importance.

15. (a) Explain the structure of nucleoside, nucleotide and polynucleotide with structures.

Or

- (b) Describe the biological functions of DNA.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions

16. Elaborately discuss about physical and chemical properties of glucose and fructose.

17. Explain in detail about the isoelectric point, isoelectric pH and Zwitter ion.

18. Discuss the chemical and physical properties of proteins.

19. Elaborately discuss physical and chemical properties of lipids.

20. Elaborately discuss about the double helical structure of DNA.

