

APRIL 2012

50102/SBBBA

---

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

All questions carry equal marks.

Each answer should not exceed 30 words.

1. Define the term carbohydrates.
2. What are epimers? Give an example.
3. Why is sucrose called as an invert sugar?
4. Name any two essential aminoacids and give the structure of any one.
5. What is isoelectric point?
6. Define rancidity.
7. What are essential fatty acids? Give examples.
8. Differentiate a nucleoside and a nucleotide.
9. Explain degeneracy of code.

10. How does a competitive inhibitor differ from non - competitive inhibitor?
11. Give the definition of vitamin and mention water soluble vitamins.
12. Mention the source and deficiency symptoms of vitamin A.

PART B — (5 × 5 = 25 marks)

Answer any FIVE questions.

All questions carry equal marks.

Each answer should not exceed 200 words.

13. Write the oxidation and reduction reactions of glucose.
14. Give the structure and properties of maltose and Lactose.
15. How are proteins classified based on their biological functions?
16. Explain the reactions due to carboxylic group of aminoacids.

17. Outline the reactions of unsaturated fattyacids due to oxidation, reduction and halogenation.
18. Describe the double helical structure of DNA.
19. Write an account on the source functions and deficiency symptoms of vitamin E and K.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

20. Explain the structure and biological significance of starch and glycogen.
21. Describe the primary and secondary structure of proteins.
22. Discuss the classification of lipids.
23. Highlight on factors affecting enzyme activity.
24. Explain the metabolic role and deficiency manifestations of Thiamine and Riboflavin.