

**APRIL 2013****50102/SBBBA**

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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 50 words.

1. How are carbohydrates classified?
2. Give the structure of fructose.
3. Differentiate starch and glycogen.
4. Name the basic and acidic aminoacids.
5. List out biological functions of proteins.
6. What is saponification?
7. Give the biological importance of cholesterol.
8. Comment on 'Wobble hypothesis'.
9. How does B-DNA differ from Z-DNA?
10. Define enzyme specificity.

11. Give the deficiency symptoms of vitamin B<sub>1</sub> and B<sub>2</sub>.
12. Write the other name of vitamin C and mention its source.

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 structure and properties of maltose and sucrose.
14. Explain the secondary structure of proteins.
15. Differentiate deamination and transamination with an example.
16. Highlight on oxidation and reduction reactions of unsaturated fatty acids.
17. Give an account of various types of RNA.
18. Write a short note on factors affecting enzyme activity.
19. Explain the coenzymic functions and deficiency manifestations of Vitamin B<sub>12</sub>.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

20. Outline the oxidation, reduction and phenylhydrazine reactions of glucose.
  21. Write the reactions of aminoacids due to carboxyl, amino and both the groups.
  22. Describe the classification of lipids.
  23. Explain the structure of DNA and mention the differences between RNA and DNA.
  24. Give a brief account of source, functions and deficiency manifestations of vitamin A and vitamin D.
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