

APRIL 2014

**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. What are carbohydrates?
2. Give the reaction of glucose with strong oxidising agent.
3. Differentiate homo and heteropolysaccharides.
4. Define isoelectric point.
5. Write any two examples for acidic and basic amino acids.
6. How does the term salting in differ from salting out?
7. What are essential fatty acids? Give an example.
8. Give the definition and significance of saponification.
9. What are isozymes? Give an example.

10. Write the composition of Inosinic acid.
11. Differentiate fat soluble and water soluble vitamins with examples.
12. Mention the source and deficiency symptoms of vitamin B<sub>12</sub> .

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 of sucrose and explain why it is called as an 'Invert Sugar'.
14. Explain 'Kiliani synthesis'.
15. Outline the reactions of urea cycle.
16. Give the structure and chemical properties of cholesterol.
17. Enumerate the characteristic features of genetic code.
18. Write a short note on factors affecting enzyme activity.
19. Highlight on chemistry, functions and deficiency symptoms of Vitamin A.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

20. Describe the structure and significance of starch and glycogen.
  21. Explain the secondary, tertiary and quaternary structure of proteins.
  22. Discuss the classification of lipids.
  23. Highlight on various types of DNA molecules and double helical structure of DNA.
  24. Describe the sources functions and deficiency symptoms of vitamin B<sub>2</sub> and B<sub>6</sub>.
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