(Pages : 3)

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Reg. No. : .....

Name : .....

Second Semester B.Sc. Degree Examination, September 2022

Career Related First Degree Programme Under CBCSS

Group 2(a) Botany and Biotechnology

Complementary Course

BB 1231 : GENERAL BIOCHEMISTRY

(2014 - 2019 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

(Very short answer type. Maximum two sentence)

Answer **all** questions.

1. What are aldoses?
2. Write the qualitative test to identify starch.
3. What are essential fatty acids?
4. Write any two properties of cholesterol.
5. What are proteins?
6. Give the examples for globular proteins.
7. What are oligopeptides?

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8. What are nucleic acids?

9. Give the composition of a nucleotide.

10. What are apoenzymes?

(10 × 1 = 10 Marks)

SECTION – B

(Short answer questions – Not to exceed one paragraph)

Answer any **eight** questions.

11. Define mutarotation.

12. Comment on optical isomerism.

13. Write the general classification of lipids.

14. What are sphingolipids?

15. What are nonessential amino acids?

16. How do you separate amino acids?

17. List out the physical properties of proteins.

18. Write the names of colour reactions of proteins.

19. Give the structure of ribose and deoxy ribose.

20. List out the major properties of enzymes.

21. Comment on the units of enzyme activity.

22. Mention the biological functions of rRNA.

(8 × 2 = 16 Marks)

SECTION – C

(Short essay – Not to exceed 120 words)

Answer **any six** questions.

23. Write any four chemical reactions of glucose.
24. How do you classify carbohydrates?
25. Write a note on acid number of fat.
26. Write any three chemical reactions of amino acids.
27. Give a brief note on alpha-helical structure of proteins.
28. Give a brief account of isoelectric precipitation.
29. Write the major differences between DNA and RNA.
30. Write short notes on non-competitive inhibition.
31. Comment on enzyme specificity.

(6 × 4 = 24 Marks)

SECTION – D

(Long essay)

Answer **any two** questions.

32. Describe the structure and properties of starch and cellulose.
33. Write in detail about the classification of amino acids.
34. Describe the salient features of Watson and Crick model of DNA with neat diagram.
35. Give an account of fibrous and globular proteins.

(2 × 15 = 30 Marks)