

Reg. No. :

Name :

Second Semester B.Sc. Degree Examination, August 2024

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

I. Very short answer type – Maximum **two** sentences. Answer **all** questions.

1. Name two epimers of glucose.
2. What are the sugar acids formed from glucose?
3. Give examples for two saturated fatty acids.
4. Name a sphingophospholipid. Which alcohol is present in it?
5. Name two aromatic amino acids.
6. Name two amino acids which can absorb UV light.
7. Name two globular proteins.
8. Name the pyrimidine bases in RNA.

P.T.O.



9. Name two hydrolases.
10. What happens to K_m and V_{max} in non-competitive inhibition.

(10 × 1 = 10 Marks)

II. Short answer questions - not to exceed **one** paragraph. Answer any **eight** questions.

11. What is Optical isomerism?
12. Write down the structure of lactose.
13. Why is Acrolein test done?
14. What are Sphingo lipids?
15. What are essential amino acids?
16. Write about the principle of Ninhydrin reaction.
17. Mention the functions of haemoglobin.
18. What is isoelectric point?
19. Write the structures of Adenine and Ribose.
20. Write about the base composition of DNA.
21. Define Enzyme specificity.
22. What are coenzymes?

(8 × 2 = 16 Marks)

III. Short essay not exceeding **120** words. Answer any **six** questions.

23. Write about the classification of carbohydrates.
24. What are the functions of Haemoglobin?
25. Explain the structure and properties of Triglycerides.
26. Write down the functional properties of steroids.



27. Write briefly about the chemical classification of amino acids.
28. Explain how proteins are denatured.
29. What are the different types of RNA?
30. Write short notes on enzyme inhibition.
31. Explain Line Weaver-Burk plot and its applications.

(6 × 4 = 24 Marks)

IV. Long essay. Answer any **two** questions.

32. Explain in detail about the chemical reactions of glucose.
33. Write about the factors that affect velocity of enzyme catalyzed reactions.
34. Discuss the Watson and Crick model of DNA.
35. Elaborate the structure and functions of phospholipids.

(2 × 15 = 30 Marks)

