

E 6382



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Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2024

Fourth Semester

Complementary Course - ADVANCED BIO-ORGANIC CHEMISTRY

(For students who have opted Biological Science and Family Community Science as main)

[2013 to 2016 Admissions]

Time : Three Hours

Maximum : 60 Marks

Part A

Answer all questions.

Each question carries 1 mark.

1. Why amino acids are called zwitterions ?
2. What is the function of peptide ?
3. What are the functions of enzymes ?
4. What is the Haworth configuration of α -D fructose ?
5. What does bile acid do ?
6. What is the function of steroid hormones ?
7. Why is saponification value important ?
8. What is the use of coniine ?

(8 × 1 = 8)

Part B

Answer any six questions.

Each question carries 2 marks.

9. Discuss any one method for the synthesis of alanine.
10. What are the functions of a polypeptide ?
11. What are the characteristics of enzyme action ?
12. What is a nucleoside ? Give one example.
13. What do you mean by mutarotation ?

Turn over





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14. What are artificial hormones ?
15. Discuss the main effects of steroids.
16. How do amine hormones work ?
17. What are lipids ?
18. What is geraniol ? What is its use ?

(6 × 2 = 12)

Part C

*Answer any **four** questions.
Each question carries 4 marks.*

19. Discuss the primary structure of protein.
20. How does ATP and ADP release energy ?
21. What is protein denaturation and how does it happen ?
22. Describe the structure and biological functions of RNA.
23. Discuss the structure and biological activity of Vitamin A.
24. What is the structure of nicotine ? What is the effect of nicotine on living beings ?

(4 × 4 = 16)

Part D

*Answer any **two** questions.
Each question carries 12 marks.*

25. Explain the classifications and properties of proteins.
26. (a) Discuss the structure of starch.
(b) Discuss the preparation and properties of glucose.
27. What are hormones ? Briefly explain the various types of hormones.
28. (a) Discuss the cleaning action of detergents.
(b) Explain the isolation and properties of essential oils.

(2 × 12 = 24)

