(Pages : 3)

T – 3434

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 II

BB 1231 : BIOMOLECULES

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in each question carries **1** mark.

1. Name the components is starch.
2. Write the two sugar acids formed from glucose.
3. Give the names of two essential fatty acids.
4. What are a sphingophospholipids?
5. Name two essential basic amino acids.
6. What are the two amino acids which can absorb UV light?
7. Give examples of the conjugated proteins.
8. What are the pyrimidine bases in RNA?
9. Name two oxido – reductases.
10. What happens to Km and Vmax in non–competitive inhibition?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

Answer any **eight** questions not exceeding one paragraph. Each question carries **2** marks.

11. What is Mutarotation?

12. Write down the structure of lactose.

13. Write the colour reaction of cholesterol.

14. What are sphingo lipids?

15. What are Zwitter ions?

16. Explain Ninhydrin reaction.

17. Write about the polar amino acids with positive R group.

18. What is Isoelectric point?

19. Write the structures of dAMP and Adenosine.

20. What are the Base composition of DNA?

21. Explain the units of enzyme activity.

22. What are coenzymes?

(8 × 2 = 16 Marks)

SECTION – C

(Short essay not exceeding 120 words)

Answer any **six** questions. Short essay each question carries **4** marks.

23. Give any four reactions of glucose.

24. What are the functions of Haemoglobin?

25. Write briefly about the classification of lipids.

26. Write short notes on: Steroids.

27. Explain the Nutritional classification of amino acids.

28. Write about the Denaturation of proteins.

29. Elaborate the Structure of DNA.

30. Write short notes an the enzyme inhibition.

31. Discuss any four chemical reaction of amino acids.

(6 × 4 = 24 Marks)

SECTION – D

(Long Essay)

Answer any **two** questions. Long essay type each question carries **15** marks.

32. Discuss the structural organization of proteins.

33. Explain the factors that affect velocity of enzyme catalyzed reaction.

34. Write about the structure, properties and functions of any three polysaccharides.

35. Elaborate the structure and functions of phopholipids.

(2 × 15 = 30 Marks)
