



(Pages : 3)

C – 4298

Reg. No. :

Name :

**Second Semester B.Sc. Degree Examination, July 2017
(Career Related First Degree Programme Under CBCSS)**

**Group 2(a) : Botany and Biotechnology
Complementary Course**

**BB 1231 : GENERAL BIOCHEMISTRY
(2014 Admission)**

Time : 3 Hours

Max. Marks : 80

SECTION – I

Very short answer type, maximum **two** sentences. Answer **all** questions.

(10×1=10 Marks)

1. What are polysaccharides ?
2. Name any four aldohexose sugars.
3. Define fatty acids.
4. Write the acrolein test.
5. What is zwitter ions ?
6. Give an examples of globular proteins.
7. Write any two hydroxy aminoacids.
8. What are nucleotides ?
9. Write the role of mRNA.
10. Define enzymes.



SECTION – II

Short answer questions, **not** to exceed **one** paragraph. Answer **any eight** questions.
(8×2=16 Marks)

11. Describe the structure and properties of sucrose.
12. Write any two qualitative tests for carbohydrates.
13. How do you classify lipids ?
14. Explain the secondary structure of proteins.
15. Give an examples of some oligopeptides.
16. Define zwitterion.
17. Differentiate DNA and RNA.
18. Write the structure of cerebroside.
19. Draw the structure of polynucleotide.
20. What are apoenzymes ?
21. Define enzyme affinity.
22. Give an examples of coenzymes.

SECTION – III

Short essay, **not** to exceed **120** words. Answer **any six** questions. (6×4=24 Marks)

23. Give the biological significance of glucose.
24. Bringout the structural differences between ribose and deoxyribose.
25. Draw the structure of a phospholipid and indicate the hydrophilic and hydrophobic regions in this molecule.
26. Bring out the three major types of RNA salient features.
27. What are amphipathic lipids ? Discuss their role in cell structure and function.



28. Write down the structures of 2, 6 dioxypyrimidine and adenosine-3-phosphate.
29. Explain the reactions of amino acids due to their carboxyl group.
30. How are the amino acids sequenced?
31. What is optimum temperature in a particular enzyme? How does temperature alter the activity of an enzyme?

SECTION - IV

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

(2×15=30 Marks)

32. Differentiate the structure of starch and glycogen.
 33. Describe the secondary and tertiary structure of proteins.
 34. Write a note on the structure and biological role of phospholipids.
 35. Illustrate the structure of Watson and Crick model DNA.
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