

(i) Printed Pages : 2

Roll No. ....

(ii) Questions : 9

Sub. Code : 

0	9	6	8
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Exam. Code : 

0	0	3	4
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**B.Sc. (Hons.) Biotechnology 2<sup>nd</sup> Semester**

**1048**

**BASIC BIOCHEMISTRY**

**Paper-BIOT-Sem-II-IV-T**

**Time Allowed : Three Hours]**

**[Maximum Marks : 67**

**Note :—** Attempt **five** questions in all, including Q. No. 1 which is compulsory. Select **one** question from each unit.

1. (a) What is isoelectric pH ?  
(b) What is the shape of a water molecule ?  
(c) Name a disaccharide.  
(d) What are glycosphingolipids ?  
(e) What is the recurring unit in terpenes ?  
(f) Name two sterols.  
(g) What is the function of folic acid ?  
(h) What is a peptidoglycan ?  
(i) Name two rare amino acids.  
(j) What is a disulphide bond ?

$1.5 \times 10 = 15$

## UNIT—I

- |    |     |  |   |
|----|-----|--|---|
| 2. | (a) | Discuss the physicochemical properties of water. | 7 |
|    | (b) | Discuss how a buffer works.                      | 6 |
| 3. | (a) | Discuss the action of acids on glucose.          | 6 |
|    | (b) | Describe the structural features of starch.      | 7 |

## UNIT—II

- |    |     |  |    |
|----|-----|--|----|
| 4. | (a) | Discuss structure and function of acylglycerols.                         | 7  |
|    | (b) | Discuss the structure and function of prostaglandins.                    | 6  |
| 5. |     | What are phosphoglycerides ? Discuss their classification and structure. | 13 |

## UNIT—III

- |    |     |  |   |
|----|-----|--|---|
| 6. | (a) | Describe the structure of vitamin D.                 | 5 |
|    | (b) | Discuss how peptide hormones execute their function. | 8 |
| 7. | (a) | Discuss the structure of Vitamin A and its function. | 6 |
|    | (b) | Describe action of riboflavin as a cofactor.         | 7 |

## UNIT—IV

- |    |     |  |   |
|----|-----|--|---|
| 8. | (a) | Discuss the functions of globular proteins.                    | 7 |
|    | (b) | Explain the forces stabilizing tertiary structure of proteins. | 6 |
| 9. | (a) | Discuss the structure of positively charged amino acids.       | 6 |
|    | (b) | Describe how and why proteins react with ninhydrin.            | 7 |

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