B.Sc. (CBCS Pattern) Semester-II

011A - Biotechnology-I - Biochemistry

P. Pages : 2 **GUG/S/25/11592**

Time : Three Hours * 1 5 4 2 * Max. Marks : 50

Notes : 1. All questions are compulsory and carry equal marks. Draw well labeled diagrams wherever necessary.

1. Describe in detail types of bond. **10**

OR

i) Discuss concept of normality. **2½**

ii) Difference between solvent and solute. **2½**

iii) Discuss hypertonic solution. **2½**

iv) Discuss in detail diffusion. **2½**

2. Discuss in detail different types of RNA. **10**

OR

i) Discuss structure of B-DNA. **2½**

ii) Discuss chemical structure of nucleic acids. **2½**

iii) Give the account of chromatin structure. **2½**

iv) Discuss concept of nucleosome structures. **2½**

3. Describe in details structures of disaccharide. **10**

OR

i) Discuss structures of triglycerides. **2½**

ii) Give the account of liposomes. **2½**

iii) Discuss types of vitamins. **2½**

iv) Draw the structure of fructose. **2½**

4. Describe in detail classification and structure of amino acid. **10**

OR

i) Discuss the primary structure of protein. **2½**

ii) Discuss the amino acid composition and their use. **2½**

iii) Discuss assignment of disulfide position. **2½**

iv) Discuss tertiary structure of myoglobin. **2½**

5. Write in very short **any ten.**

i) What is atom. **1**

ii) What is osmosis. **1**

iii) What is covalent bond. **1**

iv) What is Z-DNA. **1**

v) What is centromere. **1**

vi) What is intron. **1**

vii) Biological importance of glucose. **1**

viii) What is steroid. **1**

ix) What is lipids. **1**

x) What is protein. **1**

xi) Draw disulfide bonds. **1**

xii) What is a alpha- helix. **1**

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