

B.Sc. (CBCS Pattern) Semester-II
011A - Biotechnology Paper-I - Biochemistry

P. Pages : 2

Time : Three Hours



GUG/W/24/11592

Max. Marks : 50

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

1. Describe in detail different types of solution. **10**

OR

- i) Discuss concept of normality. **2½**
- ii) Difference between solvent and solute. **2½**
- iii) Discuss Vander wall force of attraction. **2½**
- iv) Discuss in detail diffusion. **2½**

2. Discuss in detail Watson Crick Model of B-DNA. **10**

OR

- i) Discuss structure of m-RNA. **2½**
- ii) Discuss chemical structure of nucleic acids. **2½**
- iii) Give the account of chromatin structure. **2½**
- iv) Discuss concept of split genes. **2½**

3. Describe in details structures and properties of polysaccharides starch. **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 lactose. **2½**

4. Describe in detail secondary structure of proteins. 10

OR

- i) Discuss the classification of amino acids. 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 molecules. 1
- ii) What is molarity. 1
- iii) What is covalent bond. 1
- iv) What is Z-DNA. 1
- v) What is centromere. 1
- vi) What is exons. 1
- vii) Biological importance of fructose. 1
- viii) What is chitin? 1
- ix) What is lipids. 1
- x) What is amino acids. 1
- xi) Draw disulfide bonds. 1
- xii) Quaternary structure of proteins. 1
