

B.Sc. (CBCS Pattern) Semester-II
014A - Microbiology Paper-I - General Biochemistry

P. Pages : 2

Time : Three Hours



GUG/W/24/11588(S)

Max. Marks : 50

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

1. Describe in detail types of isomers and their importance in biology. **10**

OR

i) Describe condition of cell in hypotonic solution. **2½**

ii) Describe in detail phospho-diester bond. **2½**

iii) Explain the structure of atom. **2½**

iv) Describe Peptide bond formation. **2½**

2. Discuss in detail primary and secondary structure of Proteins. **10**

OR

i) Draw the outline of quaternary structures of proteins. **2½**

ii) Discuss general structure of amino acids. **2½**

iii) Give the account of uncommon amino acids and their functions. **2½**

iv) Discuss biological significance of proteins. **2½**

3. Describe in details homo polysaccharides with suitable example. **10**

OR

i) Describe biological significance of carbohydrates. **2½**

ii) Discuss the structure of Lactose. **2½**

iii) Discuss derived lipids with example. **2½**

iv) Describe classification of Lipids. **2½**

4. Describe in detail Watson-Crick model of DNA. **10**

OR

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| i) Draw the structure of purines and pyrimidine. | 2½ |
| ii) Draw the structure of t-RNA? | 2½ |
| iii) Discuss structure of m-RNA. | 2½ |
| iv) Write note on forms of DNA? | 2½ |

5. Write in very short any ten.

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| i) What is Molecule. | 1 |
| ii) What is Buffer. | 1 |
| iii) What is Glycosidic bond. | 1 |
| iv) What is R-group in amino acid. | 1 |
| v) Write two name of acidic amino acid. | 1 |
| vi) Write two name of aromatic amino acid. | 1 |
| vii) What is monosaccharides. | 1 |
| viii) Give the example of trisaccharide. | 1 |
| ix) What is Glycolipid? | 1 |
| x) What is m-RNA. | 1 |
| xi) Give the names of pyrimidine. | 1 |
| xii) What is Nucleosides. | 1 |
