

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

P. Pages : 2

Time : Three Hours



GUG/W/24/11588

Max. Marks : 50

1. Write in detail about different types of solution. **10**

OR

a) Write about optical isomer. **2½**

b) Describe the formation of ionic bond. **2½**

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

d) Describe the concept of buffer. **2½**

2. Write about different structural levels of proteins. **10**

OR

a) Describe different types of uncommon amino acids. **2½**

b) Explain the general structure of amino acids. **2½**

c) Classify the protein based on the shape. **2½**

d) Classify the amino acid based on R group. **2½**

3. Write in about different types of disaccharides. **10**

OR

a) Write about classification of lipid. **2½**

b) Give the classification of carbohydrates. **2½**

c) Write about structure of starch. **2½**

d) Explain the structure of triglyceride. **2½**

4. Describe the Watson-Crick model of DNA structure. **10**

OR

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|----|---|----|
| a) | Write about structure of m-RNA. | 2½ |
| b) | Explain the structure of purine and pyrimidine. | 2½ |
| c) | Describe the structure of t-RNA. | 2½ |
| d) | Describe the structure of r-RNA. | 2½ |

5. Answer **any ten** of the following (1 mark each) **10**

- a) What is solvent and solute? Give example.
- b) What is the glycosidic bond?
- c) What is redox potential?
- d) Give the example of sulphur containing amino acids?
- e) What is beta helix?
- f) Give the example of basic amino acids?
- g) Name the sugar present in lactose?
- h) Give the example of trisaccharide sugar.
- i) What is mutarotation?
- j) What is nucleotide?
- k) What is phosphodiester bond?
- l) Give the examples of purine.
