

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

P. Pages : 2

Time : Three Hours



GUG/S/23/11588

Max. Marks : 50

1. Explain different types of Bonds and their significance. 10

OR

- a) Explain the concept of Molecule. 2½
- b) Discuss the concept of Atom. 2½
- c) Write about structural Isomer. 2½
- d) Explain the condition of cell in hypotonic cell. 2½

2. Explain the different types of protein structure. 10

OR

- a) Write the biological significance of protein. 2½
- b) Give the classification of amino acid based on R-group. 2½
- c) Explain the general structure of amino acids. 2½
- d) Write about uncommon amino acid. 2½

3. Explain the structure homopolysaccharide in detail. 10

OR

- a) Explain the structure of cellulose. 2½
- b) Give the classification of Carbohydrate. 2½
- c) Explain the structure of triglyceride. 2½
- d) Give the classification lipid. 2½

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

OR

- a) Explain the structure of t-RNA. 2½
- b) Write about nucleoside and nucleotides. 2½
- c) Write about r-RNA structures. 2½
- d) Describe the structure of m-RNA. 2½

5. Write any ten (each carry one mark)

- a) What is isotonic solution? **1**
- b) What is solute and solvent? **1**
- c) What is optical isomer? **1**
- d) What is amphoteric amino acid? **1**
- e) Name the sulphur containing amino acid? **1**
- f) Give the example of basic amino acid. **1**
- g) What is pentose? Give example sugar. **1**
- h) What is monosaccharide? Give example. **1**
- i) What is trisaccharide? Give example. **1**
- j) What is pyrimidine? Give example. **1**
- k) What is difference between DNA and RNA. **1**
- l) What is phosphodiester bond? **1**
