

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

P. Pages : 2

Time : Three Hours



**GUG/W/22/11588**

Max. Marks : 50

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**1.** Explain the different types of isomers and their importance. **10**

**OR**

a) Explain the condition of cell in hypertonic solution. **2½**

b) Describe the concept of atom. **2½**

c) Explain the formation of peptide bond. **2½**

d) Describe the Glycosidic bond formation. **2½**

**2.** Describe the different levels of protein structure. **10**

**OR**

a) Explain the general structure of amino acid. **2½**

b) Write in brief about conjugated proteins. **2½**

c) Give the classifications of amino acid. **2½**

d) Write about uncommon amino acid. **2½**

**3.** Write in detail about the structure of lactose and sucrose. **10**

**OR**

a) Write the classification of lipids. **2½**

b) Describe the structure of triglycerides. **2½**

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

d) Discuss the structure of Glucose. **2½**

**4.** Describe the structure of m – RNA and t – RNA. **10**

**OR**

a) Write about pentose sugar of nucleic acid. **2½**

b) Write about ribosomal RNA. **2½**

c) Explain nucleoside and nucleotide. 2½

d) Write about purine and pyrimidine. 2½

**5. Write any ten.**

a) What is D and L isomer? 1

b) What is isotonic solution? 1

c) What is solvent? Give example? 1

d) Name basic amino acid? 1

e) What is Zwitterion? 1

f) What is alpha helix? 1

g) What is mutarotation? 1

h) What is glycolipid? 1

i) What is heteropolysaccharide? Give example. 1

j) What is the diameter of DNA double helix? 1

k) What is poly A tail of m – RNA? 1

l) Name the ring present in purine structure. 1

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