



**B.Sc. Biological Sciences (3<sup>rd</sup> Semester)**

**Course: Biomolecules-I**

**Course Code: BSC201**

**Total Marks: 30**

**Maximum Time: 2:00 Hrs**

**PART I Give answers to any six questions:**

**(Marks: 1 × 6 = 6)**

1. Most abundant organic compound present on earth is.....
2. Length of one turn of the helix in B-DNA is approximately.....
3. Where are phosphatidylserine and phosphatidylinositol present in cell membrane?
4. Name the disaccharide which on hydrolysis gives glucose and galactose.
5. Where are fat stored and its role?
6. Name the vitamin whose deficiency causes pernicious anemia?
7. What type of linkage is present in Nucleic acids?

**PART II Give answers to any four questions:**

**(Marks: 3 × 4 = 12)**

8. Discuss the biological importance of carbohydrates
9. Discuss Oswald T. Avery, Colin MacLeod, and Maclyn McCarty experiment to prove DNA as genetic material.
10. The two strands of DNA are not identical but are complementary." Explain.
11. Explain the phospholipids and its functions.
12. Write a short note on biological function of vitamins.

**PART III Give answers to any two questions:**

**(Marks: 6 × 2 = 12)**

13. Discuss fat and its chemical properties.
14. What is essentially the difference between  $\alpha$ -glucose and  $\beta$ -glucose? What is meant by pyranose structure of glucose?
15. Discuss the Watson and Crick double helix structure.

