

**I Semester, M.Sc. in Biotechnology Examination May 2014**  
**Biomolecules**

**Time: 3 Hours**

**Max. Marks: 80**

*Instruction: Answer all the sections.*

**Section A**

Answer any **FOUR** questions from the following

**4 × 5 = 20**

1. Starch
2. Haemoglobin
3. Saponification number
4. Sphingolipids
5. Functions of cholesterol
6. Chargaff's rule

**Section B**

Answer any **THREE** questions from the following

**3 × 10 = 30**

7. Classify carbohydrates with suitable examples
8. Classify amino acids based on nature of R groups
9. Describe the steps involved in determination of primary structure of proteins
10. Enumerate and explain physico-chemical properties of RNA
11. Explain Watson and Crick's model of DNA

**Section C**

Answer any **TWO** questions from the following

**2 × 15 = 30**

12. Explain the reactions of amino acids.
13. Explain the structure and functions of biologically active peptides.
14. Give detailed classification of lipids.
15. Explain the structure and chemistry of nucleotides.