

D 2721

(2 pages)

Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2005

General Biotechnology

GBT-102 – BIOMOLECULES

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer any **two** questions.*

1. Classify the amino acids based on their chemical properties.
2. Describe electrophoresis.
3. Explain the structure and properties of lipids.

(2 x 10 = 20 marks)

Section B

*Answer any **ten** questions.*

4. What are buffers ?
5. Give differences between covalent bond and ionic bond.
6. What is enthalpy ?
7. What is entropy ?
8. What is meant by functional groups ? Give examples.
9. Why peptide bond is planar ?
10. Write on the classification of carbohydrates.
11. Give differences between amylose and amylopectin.
12. Explain the structure of cellulose.
13. Write briefly on ion exchange chromatography.
14. What is Ramachandran map ?
15. Write briefly on the classification of proteins.

(10 x 5 = 50 marks)

Section C

*Answer **all** questions.*

16. What is dissociation constant of an acid ?
17. Define the open, closed and isolated systems.

Turn over-

18. What are pyrimidines ?
19. Write on dialysis.
20. What are absorption and emission spectra ?

(5 x 2 = 10 mark..