

OCTOBER 2011

P/ID 40230/PBTK

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

Write short notes on:

1. Covalent bond.
2. Maltose.
3. Non protein amino acids.
4. Sulfur containing amino acids.
5. Triglycerides.
6. ATP.
7. Cytochrome a.
8. Emulsification.
9. Biological roles of enzymes.
10. Ligase.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Define Buffer. Write its characteristics.
Or
(b) What is mutarotation?
12. (a) Write short notes on denaturation of proteins.
Or
(b) Write the importance of Ramachandran plot.
13. (a) Illustrate the structure and functions of steroids.
Or
(b) Mention the structure and functions of glycolipides.
14. (a) Write short notes on entropy.
Or
(b) Comment of exergonic and endergonic reactions.
15. (a) Briefly give an account on Enzyme kinetics.
Or
(b) Derive the Handerson-Hasselbalch equations.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Explain the structure and function of starch.

Or

(b) Explain the structure and function of trioses.

17. (a) Write the physical properties of aminoacids.

Or

(b) Write the principles and procedure of SDS-PAGE.

18. (a) Illustrate the structure and hydrolysis of ATP.

Or

(b) Give an account on Redox potential.

19. (a) List the various applications of enzymes in industry and in medicines.

Or

(b) Define enzyme inhibitors. Explain competitive and non competitive inhibitors.

20. (a) Illustrate the structure and functions of fatty acids.

Or

(b) Describe the structure and functions of phospholipids.
