Reg. No. : | | | | | | | | | | | |

J 3089

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2009.

Fifth Semester

Biotechnology

BT 1302 — BIOCHEMISTRY — II

(Regulation 2004)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is meant by sequential feed back?

2. Write any two disorders of the aromatic amino acids metabolism.

3. What is meant by depolarization and repolarization?

4. Write the structure of GABA.

5. What are the functions of vesicles?

6. Write the properties of fat soluble vitamins.

7. What is meant by salvage pathway?

8. What are microtubules?

9. Write about Cystic fibrosis.

10. Differentiate mediated and non-mediated transport across membranes.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the steps involved in the bio synthesis of aromatic amino acids. (16)

Or

(b) (i) Enumerate leucine and isoleucine catabolic regulation. (10)

(ii) Discuss the biosynthesis of Sulphur containing amino acids. (6)

12. (a) (i) Explain SRP cycle. (10)

(ii) Comment on cytosolic chaperons and matrix chaperons. (6)

Or

(b) (i) Describe the function of primary and secondary active transport in membrane transport. (10)

(ii) Explain about receptor mediated endocytosis. (6)

13. (a) Describe briefly about cholesterol biosynthesis. (16)

Or

(b) (i) Describe the β-oxidation of fatty acids. (10)

(ii) Explain the role of insulin to control the blood glucose level. (6)

14. (a) (i) Explain the role of actin and myosin complex. (10)

(ii) Troponins — Explain. (6)

Or

(b) (i) Describe the role of microtubules and microfilaments in organelle movements. (10)

(ii) Explain the function of contractile proteins. (6)

15. (a) (i) Discuss any five neurotransmitters and their biological significance. (10)

(ii) Explain how agonist and antagonists are used as drugs. (6)

Or

(b) (i) Describe the membrane structure and function of the lipid bilayer. (8)

(ii) Explain voltage- gated ion channel. (8)