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B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2008.

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. Write the importance of SGOT and SGPT.

2. What is phenylketoneuria?

3. What are chaperons?

4. What is protein turn over?

5. What is β – oxidation of fatty acids?

6. Write the role played by coenzymes.

7. What are microtubules?

8. Write the importance of glycogen.

9. Write the importance of acetyl choline esterase.

10. Write about active transport.

PART B — (5 × 16 = 80 marks)

11. (a) Give a detailed account of different regulations in branched chain aminoacid metabolism.

Or

(b) (i) Describe the biosynthesis of Lysine. (8)

(ii) Write about nitrogen metabolism and urea cycle. (8)

12. (a) Describe the process of protein secretion.

Or

(b) (i) What are chaperons? How is protein targeting facilitated? (8)

(ii) Explain protein – mediated endocytosis. (8)

13. (a) (i) Describe denovo and salvage pathways for purines and pyrimidines. (12)

(ii) What are the regulatory mechanisms involved? (4)

Or

(b) Describe the biosynthesis and degradation of lipids.

14. (a) Write in detail about mechanism of action and importance of contractile proteins.

Or

(b) Describe about microtubules and their roles in organelle movements.

15. (a) Describe how solutes are transported across the membrane.

Or

(b) (i) Write about neuro transmitters and their mechanism of action. (8)

(ii) How are agonists and anti–agonists used as drugs? (8)