

M.TECH. DEGREE EXAMINATIONS: DECEMBER 2009

First Semester

BIOTECHNOLOGY

BTY501: Human Physiology and Biochemistry

Time: Three Hours

Maximum Marks: 100

Answer All the Questions:-

PART A (10 x 2 = 20 Marks)

Write short notes on the following:-

1. Acid base balance.
2. Renal function tests.
3. Bile acids.
4. CSF.
5. Parathyroid hormones.
6. Glucagon hormone.
7. High energy phosphate.
8. Oxidative phosphorylation.
9. Ketogenesis.
10. Covalent modification.

PART B (5 x 16 = 80 Marks)

11. (a). Elaborate on digestion of fats.

(OR)

(b). Write in detail on composition of urine.

12. (a). Explain in detail on lipo proteins.

(OR)

(b). Discuss on Liver function tests.

13. (a). Write an essay on Adrenal cortex and medullary hormones.

(OR)

(b). Write an essay on pituitary hormones.

14. (a). Illustrate the mechanism of $\text{NAD}^+/\text{NADP}^+$ and FAD co-enzymes action in biological oxidation reduction reactions.

(OR)

(b) Write in detail the role of Vitamin B_{12} co- enzyme in metabolic reactions.

15. (a). Elaborate on regulation of fatty acid metabolism.

(OR)

(b). Elaborate on regulation of glucose metabolism.
