



# CBCS SCHEME

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18BT46

## Fourth Semester B.E. Degree Examination, June/July 2024 Clinical Biochemistry

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. In detail discuss the steps involved in regulation of Kreb's cycle. Add a note on its significance. (10 Marks)
- b. With reference to chemiosmotic hypothesis explain the process of oxidative phosphorylation. (10 Marks)

OR

- 2 a. Illustrate the steps involved in biosynthesis of phospholipids. (10 Marks)
- b. Outline the stages of cholesterol bio synthesis. (10 Marks)

### Module-2

- 3 a. Describe the procedure involved in oral glucose tolerate test. Add a note on GTT curve. (10 Marks)
- b. Define hypoglycemia. Explain the identification signs and symptoms along with its pathophysiology, prevention and treatment. (10 Marks)

OR

- 4 a. Discuss in detail lipidoses with example. (10 Marks)
- b. Write short notes on (i) Sialidosis (ii) Wolman's disease (10 Marks)

### Module-3

- 5 a. Explain the steps involved in lysine biosynthesis process. (10 Marks)
- b. Indicating the steps explain the urea cycle. (10 Marks)

OR

- 6 a. Outline with structure the purines and pyrimidine for polynucleotide formation. (10 Marks)
- b. Quoting example explain transamination. (10 Marks)

### Module-4

- 7 a. Discuss the genetic conditions, symptoms and treatment of alkaptonuria. (10 Marks)
- b. Elaborate on the conditions of phenylketonuria and albinism. (10 Marks)

OR

- 8 a. Give a detailed account of hormones produced by pituitary gland. Add a note on hypo secretion of pituitary. (10 Marks)
- b. Explain the details of any two disorders associated with pyrimidine metabolism. (10 Marks)

### Module-5

- 9 a. Write a elaborate note on Kidney function tests and their clinical importance. (10 Marks)
- b. Discuss the role of serum enzymes in diagnosis of myocardial infarction. (10 Marks)

OR

- 10 a. Outline the clinical significance of Creatine kinase. (10 Marks)
- b. Explain the various functions carried out by liver. (06 Marks)
- c. Write a critical note on classification of Liver function test. (04 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.