CBCS SCHEME

18BT46

Fourth Semester B.E. Degree Examination, Jan./Feb. 2021
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.   Explain in detail the steps involved in glycolysis.   (10 Marks)
    b.   Explain the β – oxidation of saturated fatty acid taking palmitic acid as an example.
                                                                                                 (10 Marks)

OR

2   a.   Describe the biosynthesis of cholesterol.   (10 Marks)
    b.   Explain Pentose phosphate pathway and its significance.   (10 Marks)

Module-2

3   a.   What is diabetes mellitus? Give an account of different types of diabetes mellitus and metabolic changes in diabetes melli.   (10 Marks)
    b.   Explain the disorders associated with lipid metabolism.   (10 Marks)

OR

4   a.   Give an account of glycogen storage diseases.   (10 Marks)
    b.   Write a note on : i) Ketone bodies   ii) Multiple sclerosis.   (10 Marks)

Module-3

5   a.   Explain the biosynthesis of glutamine pathway.   (10 Marks)
    b.   Explain the degradation of purine nucleotides.   (10 Marks)

OR

6   a.   Explain the urea cycle with reaction sequences. Indicate how this cycle is interrelated to common metabolic pathway.   (10 Marks)
    b.   Describe the steps involved in biosynthesis of pyrimidines. How is it regulated?   (10 Marks)

Module-4

7   a.   Elaborate on the clinical condition of albinism.   (10 Marks)
    b.   Discuss about the clinical condition of Phenylketonuria.   (10 Marks)

OR

8   a.   Discuss protein harmones and their functions.   (10 Marks)
    b.   Write a note on : i) Gout   ii) Homocystinuria.   (10 Marks)

Module-5

9   a.   Discuss the various liver function tests and their clinical significance.   (10 Marks)
    b.   Elaborate on gastric function tests and their clinical significance.   (10 Marks)

OR

10 a.   Discuss the role of serum enzymes in the diagnosis of myocardial infarction.   (10 Marks)
    b.   Discuss enzymes of pancreatic origin in detail.   (10 Marks)

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