

THE TAMIL NADU Dr.M.G.R. MEDICAL UNIVERSITY

(LQ 4254)

FEBRUARY 2020

Sub Code: 4254

**B.PHARM. DEGREE EXAMINATION  
FIRST YEAR  
PAPER IV – BIOCHEMISTRY**

*Q.P. Code: 564254*

**Time: Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. a) Explain Electron Transport Chain (ETC) and its mechanism.  
b) What is Glycolysis? Explain its pathway and energetics.
2. Give the detail notes on conversion of cholesterol into bile acids, steroid hormone and Vitamin D.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Enzyme inhibitors with examples.
2. Synthesis of 5-HT and Noradrenaline.
3. DNA replication.
4. De novo synthesis of fatty acids.
5. Relationship between free energy, enthalpy and entropy.
6. Diabetes Mellitus.
7. Classification of lipids and its biological role.
8. Therapeutic and diagnostic applications of enzymes.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Confirmatory tests for Carbohydrate.
2. Biochemical functions of co-enzymes.
3. Hypercholesterolemia.
4. Difference between DNA and RNA.
5. Significance of HMP shunt.
6. Enzyme repression.
7. Ketoacidosis.
8. Iodine value.
9. BMR.
10. ATP.

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