

Paper Id. 233689

Roll No.

**B PHARM  
(SEM II) THEORY EXAMINATION 2022-2023  
BIOCHEMISTRY**

Time: 3 Hours

Total Marks: 75

**Note:** Attempt all Sections. If require any missing data, then choose suitably.

**SECTION A**

**10 x 2 = 20**

1. Attempt *all* questions in brief.
  - a. Define Glycogenesis and Glycogenolysis
  - b. How many ATP are produced in Glycolysis and TCA cycle?
  - c. Define co-enzyme and Electron Transport Chain.
  - d. Define Enthalpy and Entropy.
  - e. What is Allosteric inhibition?
  - f. Define HMP-shunt.
  - g. Define the condition and reason of Gout.
  - h. What are Phospholipids? Give examples.
  - i. What is Oxidative Phosphorylation?
  - j. Define Genetic code with examples

**SECTION B**

2. Attempt any *two* parts of the following:
  - a. Give the derivation of Michaelis-Menton equation and also explain various factors affecting enzyme activity.
  - b. Describe disorders of Lipid metabolism in detail.
  - c. Explain structure of DNA and RNA and their functions.

**SECTION C**

3. Attempt any *five* parts of the following:
  - a. Discuss in detail about urea cycle. Also give the significance of urea cycle.
  - b. Write a short note on :- i). Genetic code ii). Hypercholesterolemia
  - c. Write a note on  $\beta$ - oxidation of saturated fatty acids.
  - d. Write the biosynthesis of ketone bodies and their utilization.
  - e. Describe Coenzyme with its structure and biological function.
  - f. Discuss in detail about the De novo synthesis of fatty acids.
  - g. What is reducing sugar? Explain the cyclic structure of Glucose.