

--	--	--	--	--	--	--	--	--	--

**B PHARM**  
**(SEM II) THEORY EXAMINATION 2017-18**  
**BIOCHEMISTRY**

Time: 3 Hours

Total Marks: 75

**SECTION A**

1. Attempt *all* questions in brief.

10 x 2 = 20

- a) Define mutarotation.
- b) Differentiate endergonic & exergonic reactions.
- c) What is phosphorolysis?
- d) Define essential & non-essential amino acid.
- e) How many ATP are produced in glycolysis and TCA cycle?
- f) Briefly describe hypercholesterolemia.
- g) Write a short note on nucleic acid.
- h) Define nitrogenous bases with structure.
- i) What is active center?
- j) Define coenzyme and Electron transport chain.

**SECTION B**

2. Attempt any *two* parts of the following:

2 x 10 = 20

- a) What is monosaccharide? Discuss the glycolysis pathway and its energetics.
- b) Write a note on enzyme inhibition. Explain Michaelis-Menton plot of enzyme kinetics.
- c) What are ketone bodies? Give the reactions of formation of ketone bodies.

**SECTION C**

3. Attempt any *five* parts of the following:

7 x 5 = 35

- a) What is reducing sugar? Explain the cyclic structure of glucose.
- b) Give the oxidative phase of HMP pathway. Discuss its significance.
- c) Write a note on  $\beta$ -oxidation of saturated fatty acid.
- d) What is deamination? Discuss the metabolic disorder of phenylalanine.
- e) What is isoenzyme? Discuss its diagnostic applications.
- f) Explain Gout disease. Give the structure of DNA & RNA.
- g) What is oxidative phosphorylation? Discuss its mechanism.