

**B PHARM**  
**(SEM-II) THEORY EXAMINATION 2018-19**  
**BIOCHEMISTRY**

Time: 3 Hours

Total Marks: 75

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

**SECTION A**

1. Attempt *all* questions in brief.

10 x 2 = 20

- a. What are Phospholipids? Give examples.
- b. What are energy rich compounds? Give examples.
- c. Define Glycogenesis and Glycogenolysis.
- d. Write the hormones involved in the regulation of blood glucose level.
- e. What do you understand by the term Transamination? Give example.
- f. What is Allosteric inhibition?
- g. Define Genetic code with examples.
- h. Write down the synthesis of 5-HT (5-hydroxytryptamine) from Tryptophan.
- i. Write down the biological role of Nucleic Acid.
- j. Define Enthalpy and Entropy.

**SECTION B**

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

2 x 10 = 20

- a. What is gluconeogenesis? Give an outline of reactions. How are these reactions controlled? What is biological importance of these reactions?
- b. Give the derivation of Michaelis-Menten equation and also explain factor affecting enzyme activity.
- c. Describe the process of DNA replication in detail.

**SECTION C**

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

7 x 5 = 35

- a. Describe Embden Meyerhof pathway (glycolysis) in the body with energetic.
- b. Enumerate the ketone bodies. Describe the formation and utilization of ketone bodies in the body.
- c. Discuss in detail about urea cycle. Also give the significance of urea cycle.
- d. Write in detail the mode of protein biosynthesis with schematic representations.
- e. What are enzymes? Describe various processes of inhibition of enzymes activity.
- f. Write down the biosynthesis and biological significance of Dopamine, Noradrenaline and Adrenaline.
- g. Discuss in detail about the De novo synthesis of fatty acids.