

**F.Y.B.PHARM. SEMESTER-II (CBCS - 2015 Course) : SUMMER - 2019**

**SUBJECT : PHARMACEUTICAL BIOCHEMISTRY – I**

Day : Thursday  
Date : 02/05/2019

Time : 10.00 A.M. TO 01.00 P.M.  
Max. Marks : 60

**S-2019-4378**

**N.B.:**

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

**SECTION – I**

- Q.1** Attempt **ANY FIVE** of the following: [10]
- a) State name and structure of any two acidic amino acids.
  - b) What is affinity chromatography?
  - c) Give two examples of polysaccharides containing 1 – 4 glycosidic linkage.
  - d) Give any two colour reactions of amino acids.
  - e) What are phospholipids?
  - f) What is isoelectric pH?
- Q.2** a) What are essential amino acids? Describe deficiency of essential amino acids. [07]  
b) What is acid value of oils? Give its importance. [03]
- Q.3** a) What is enzyme immobilization? Discuss different types of enzyme immobilization. [07]  
b) Define  $K_M$  and give its kinetic significance. [03]
- Q.4** Write notes on **ANY TWO** of the following: [10]
- a) Pharmaceutical uses of polysaccharides
  - b) Protein denaturation
  - c) Primary structure of protein

**SECTION – II**

- Q.5** Attempt **ANY FIVE** of the following: [10]
- a) What is active transport?
  - b) What are glycolipids?
  - c) What are derived amino acids?
  - d) What are liposomes?
  - e) Give any four examples of essential amino acids.
  - f) What are coenzymes?
- Q.6** a) What is enzyme inhibition? Describe Competitive and noncompetitive enzyme inhibition. [07]  
b) What are isoenzymes? [03]
- Q.7** a) What is ion exchange chromatography? Explain how proteins are separated by ion exchange chromatography. [07]  
b) State functions of Lysosomes. [03]
- Q.8** Write notes on **ANY TWO** of the following: [10]
- a) Applications of enzymes
  - b)  $Na^+ - k^+$  Pump
  - c) Classification of enzymes