

**F.Y.B.PHARM. SEMESTER-II (2011 COURSE) : SUMMER - 2018**

**SUBJECT: PHARMACEUTICAL BIOCHEMISTRY-I**

Day: **Saturday**  
Date: **28/04/2018**

**S-2018-3947**

Time: **10.00 AM TO 01.00 PM**  
Max. Marks: 80

**N.B:**

- 1) Question 1 and question 5 are **COMPULSORY**, and out of remaining solve any **TWO** question from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to both the sections should be written in **SEPARATE** answer book.

**SECTION-I**

**Q.1** Attempt **ANY FIVE** of the following: **(10)**

- a) What are lysosomes?
- b) Define coenzymes and give two examples.
- c) What is affinity matrix in affinity chromatography?
- d) State any one bio-analytical application of enzyme.
- e) What are antimetabolites?
- f) Define iso-electric point.

**Q.2** Answer **ANY THREE** of the following: **(15)**

- a) Describe membrane structure and explain working of sodium-potassium pump.
- b) What are lipids? Give their classification with examples.
- c) State classification of proteins. Give examples for each class.
- d) What are excitable membrane? Explain in detail.

**Q.3** Answer **ANY THREE** of the following: **(15)**

- a) What is enzyme immobilization? Discuss different methods of immobilization.
- b) Describe biochemical morphology of mitochondria.
- c) How mixture of proteins is separated on the basis of molecular weight?
- d) What is enzyme specificity? Explain in detail.

**Q.4** Write short notes on **ANY THREE** of the following: **(15)**

- a) Allosteric Enzymes.
- b) Effect of pH on rate of enzyme catalyzed reaction
- c) Isoenzymes
- d) Nutritional value of proteins

**SECTION-II**

**Q.5** Attempt **ANY FIVE** of the following: **(10)**

- a) What is Michaelis-Menten Constant of enzyme?
- b) What is an active site of enzyme?
- c) What are essential fatty acids? Give one example.
- d) State the structure of tryptophan and lysine
- e) State Edman's Reagent.
- f) What are prosthetic groups?

**P.T.O.**

**Q.6** Answer the following: (15)

- a) What is diffusion? Explain different types of diffusion seen in biological systems.
- b) What is primary structure and how it is determined?
- c) Describe pharmaceutical use of proteins in detail.

**Q.7** Answer the following: (15)

- a) Illustrate the principle of electrophoresis. How proteins are separated by electrophoresis.
- b) Describe the amino acid classification with examples.
- c) What is protein denaturation? Explain in detail.

**Q.8** Write Short notes on the following: (15)

- a) Protein Data Bank
- b) Role of metal ion in protein structure
- c) Electro-dialysis

\* \* \* \*