

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**B.Pharm. Winter 2017-18 Examination**

**Semester: 5****Subject Code: 08101302****Subject Name: Pharmaceutical Chemistry-VI (Biochemistry-I)****Date: 13-12-2017****Time: 10.00 am to 01.00 pm****Total Ms: 75****Instructions:**

1. Figures to the right indicate full Marks.
2. Make suitable assumptions wherever necessary.

**Q.1 Essay type Questions. (Any 2 out of 3) (10 Marks each) (20)**

1. What are enzymes? Explain mechanism of enzyme action and enzyme inhibition in detail
2. Draw neat and clean diagram of DNA. Give types of RNA, their structures and biological role.
3. Write a note on purine biosynthesis and explain disorders associated with purine metabolism.

**Q.2 Short Essay type Questions. (Any 7 out of 9) (5 Marks each) (35)**

1. Define & classify carbohydrates with suitable examples.
2. Discuss the Edman's techniques for determination of amino acid sequences.
3. Write a note on secondary structure of proteins.
4. Give a detailed note on phospholipids.
5. Discuss biosynthesis of porphyrin.
6. Explain in brief the factors affecting enzyme action.
7. Write a note on essential fatty acids and lipoproteins.
8. Discuss reactions of urea cycle.
9. Describe various reactions of monosaccharide.

**Q.3 Answer in short. (2 Marks each) (20)**

1. What is anabolism and catabolism?
2. Differentiate saturated & unsaturated fatty acids.
3. Give biological importance of ATP synthesis.
4. Give a brief note on competitive enzyme inhibition.
5. Give definition of transamination and deamination.
6. Differentiate prokaryotic and eukaryotic cell.
7. What is coenzyme and co-factor?
8. Define hemiacetal and hemiketal.
9. What is acid value and iodine number?
10. Define bioenergetics and discuss the concept of free energy.