

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**B.Pharm. Winter 2018-19 Examination**

**Semester: 6****Subject Code: 08101352****Subject Name: Pharmaceutical Chemistry-VIII (Biochemistry-II)****Date: 26/11/2018****Times: 02:00 pm to 05:00 pm****Total Marks: 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. Explain Krebs-Henseleit cycle with structure with its metabolic disorders.
2. Explain Pentose phosphate pathway with all necessary structures.
3. Write a short note on saturated fatty acid.

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

1. Give a note on  $\beta$ -oxidation of fatty acids with energetic.
2. Write about biosynthesis and utilization of ketone bodies.
3. Define oxidative Phosphorylation and explain with mechanism.
4. Write a note of centrifugation and chromatography in biochemistry.
5. Give detailed account on enzymes involved in biological oxidation.
6. Define protein synthesis. Write a note on inhibitors of protein synthesis.
7. Discuss in detail about cholesterol biosynthesis.
8. What is PCR? Write short note on PCR & its significance.
9. Give a details note on Electrophoresis techniques.

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

1. What are the possible causes for DNA damage?
2. Write a note on process of replication of DNA.
3. Discuss Gene expression in eukaryotes in detail.
4. Differentiate following pairs.  
(i) Alpha oxidation & Omega oxidation.
5. Differentiate following pairs.  
(i) Fatty acid synthesis and Beta oxidation.
6. Write a note on Gluconeogenesis.
7. Describe the reaction of Galactose metabolism.
8. Write about the structure and coenzyme activity of Riboflavin.
9. Give the difference between saturated fatty acid and Unsaturated fatty acid.
10. Explain physiological significance of vitamin E.