

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 3- EXAMINATION –WINTER - 2018

Subject Code: 2230003**Date: 10/12/2018****Subject Name: Pharmaceutical Chemistry-III (Biochemistry - I)****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What are Carbohydrates? Give classification of carbohydrates with examples. **06**
(b) Define Following term: (a)Epimers (b)Anomers (c) Mutarotation (d) Reducing sugar(e) Mutarotation (f) Tautomerization **05**
(c) Write Principle of (a) Seliwanoff ' s test (b) Osazone Test **05**
- Q.2** (a) Discuss Glycolysis with energetics **06**
(b) Discuss Citric acid cycle. How many molecule of ATP are produce in the cycle? **05**
(c) Write short note on Gluconeogenesis. **05**
- Q.3** (a) Give an account of Hexose monophosphate pathway and mention its importance. **06**
(b) Give an account of Fructose metabolism in body? **05**
(c) Short note on Role of Hormones in Maintenance of Blood Sugar Level. **05**
- Q.4** (a) What are Phospholipids? Classify them and write the functions of phospholipids. **06**
(b) Define Lipids. Classify them with example. **05**
(c) What are fatty acids? Explain the various parameters measured to check the purity of fats and oils. **05**
- Q.5** (a) Write a note on β –oxidation of fattyacids. **06**
(b) Write note on Cholesterol biosynthesis. **05**
(c) What are ketone bodies? Write note on ketogenesis along with its regulations **05**
- Q. 6** (a) Define Enzyme and classify it. **06**
(b) Explain Mechanism of Enzyme action. **05**
(c) Write a note on Isoenzyme. **05**
- Q.7** (a) Explain Metals and Vitamins as Co-enzyme and their Significance. **06**
(b) Short Note on Mineral Metabolism. **05**
(c) Discuss the process of active transport across cell membrane. **05**
