

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 3 EXAMINATION – SUMMER -2020

Subject Code: 2230003**Date: 28-10-2020****Subject Name: Pharmaceutical Chemistry-III (Biochemistry – I)****Time: 2:30 PM TO 5:30 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) Define and Classify the Carbohydrates with example and give the structure of Disaccharides. **06**
- (b) Describe in detail about role of Hormones in maintenance of Blood Sugar Level. **05**
- (c) Write a note on inversion of Sucrose. **05**
- Q.2** (a) Describe HMP shunt and give its significance. **06**
- (b) Outline the Synthesis of Glucose from Non-Carbohydrate sources. **05**
- (c) Define Co-Enzyme. Explain significance of Vitamin B₁ & Vitamin B₁₂ as co-enzymes. **05**
- Q.3** (a) Explain in detail transport mechanism across cell membrane. **06**
- (b) Write a note on Phospholipids. **05**
- (c) Define Iso-Enzyme. Explain significance of Iso-Enzyme in clinical diagnosis. **05**
- Q.4** (a) Explain TCA cycle along with energetics. **06**
- (b) Explain the mechanism of Enzyme Action. **05**
- (c) Explain glycogenesis in detail. **05**
- Q.5** (a) Define Enzyme inhibition. Explain reversible and irreversible inhibition of enzyme. **06**
- (b) Explain β - oxidation of fatty acids with its energetics. **05**
- (c) Explain about Glyoxilic acid cycle. **05**
- Q.6** (a) Discuss in detail Cholesterol biosynthesis. **06**
- (b) Discuss glycolysis with energetic. **05**
- (c) Write about biosynthesis and utilization of ketone bodies. **05**
- Q.7** (a) Discuss the Bio synthesis of Fatty acids. **06**
- (b) Write a note on water and mineral metabolism. **05**
- (c) Write a note on galactose metabolism in the body. **05**
