

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.

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|-------------|-----|---|-----------|
| 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 B ₁ & Vitamin B ₁₂ 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 |
