

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM- SEMESTER-3 - EXAMINATION – SUMMER -2023**

**Subject Code:BP303TP****Date:09/08/2023****Subject Name: Biochemistry****Time: 10:30am to 01:30pm****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) Write in brief Genetic code. Add a note on various inhibitors for protein synthesis. **06**
- (b) Note on disorders of lipid metabolism. **05**
- (c) Discuss in detail Cholesterol Biosynthesis. **05**
- Q.2** (a) Discuss in detail about purine biosynthesis. **06**
- (b) What do you mean by ketone bodies? Discuss its formation and utilization. **05**
- (c) Define Enzyme. Give the brief classification of enzymes with suitable examples. **05**
- Q.3** (a) Discuss  $\beta$ -oxidation of fatty acids. **06**
- (b) Define Enzyme inhibition. Explain reversible and irreversible inhibition of enzyme. **05**
- (c) Write a note on citric acid cycle & explaining its amphibolic nature. **05**
- Q.4** (a) Discuss components and reactions of the electron transport chain. **06**
- (b) Write a note on Glycogen Storage Disease. **05**
- (c) Discuss the Watson and Crick model of DNA structure. **05**
- Q.5** (a) Write about reaction of Krebs-Henseleit cycle and enlist disorders of the cycle. **06**
- (b) Describe in brief DNA replication. **05**
- (c) Discuss the Synthesis of Glucose from Non-Carbohydrate sources. **05**
- Q.6** (a) Discuss Aerobic Glycolysis with energetic. **06**
- (b) Write in brief about jaundice. **05**
- (c) Describe in detail transamination and deamination reactions for amino acids metabolism. **05**
- Q.7** (a) What are carbohydrates? Give classification of carbohydrates with examples & function of it. **06**
- (b) Define oxidative phosphorylation and discuss inhibitors of oxidative phosphorylation. **05**
- (c) Define bioenergetics and discuss concept of free energy. **05**

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