

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Pharm – SEMESTER-III • EXAMINATION – SUMMER -2020**

**Subject Code: BP303TP****Date: 28-10-2020****Subject Name: BIOCHEMISTRY****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 Carbohydrate. Discuss classification and biological role of Carbohydrates. **06**  
(b) Write down biological significance of cholesterol. **05**  
(c) Write a detail note on structure of protein. **05**
- Q.2** (a) Describe the hexose monophosphate shunt. Write about its significance. **06**  
(b) Write down  $\beta$ -Oxidation of saturated fatty acid. **05**  
(c) Write down catabolism of Tyrosine. Discuss its metabolic disorders. **05**
- Q.3** (a) Write down biosynthesis of purine and pyrimidine nucleotides in briefs. **06**  
(b) Write about the process of replication of DNA. **05**  
(c) Explain about hormonal regulation of blood glucose level in body. **05**
- Q.4** (a) Write down biological significances of ATP and cyclic AMP. **06**  
(b) What are lipids? Classify lipids with example. **05**  
(c) Write a note on Genetic Code. **05**
- Q.5** (a) Define following terms: **06**  
1. Enthalpy  
2. Entropy  
3. Redox Potential  
(b) Explain formation and utilization of ketone bodies. **05**  
(c) Write a note on Protein synthesis. **05**
- Q.6** (a) Write down electron transport chain (ETC) and its mechanism. **06**  
(b) Write about structure of RNA. **05**  
(c) Discuss structure and biochemical functions Coenzymes **05**
- Q.7** (a) Define enzymes. Discuss properties and classifications of enzymes. **06**  
(b) Write about urea cycle and its disorder. **05**  
(c) Discuss synthesis and significance of Dopamine. **05**

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