

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.

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|-------------|---|-----------|
| 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 β -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:
1. Enthalpy
2. Entropy
3. Redox Potential | 06 |
| | (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 |
