

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 4 EXAMINATION – WINTER -2019**

**Subject Code: 2240003****Date: 20-12-2019****Subject Name: Pharmaceutical Chemistry – V (Biochemistry – II)****Time: 02:30 PM TO 05:30 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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|-------------|---|-----------|
| <b>Q.1</b>  | (a) Define Amino acid. Classify amino acid on the basis of structure.                                 | <b>06</b> |
|             | (b) Discuss the Secondary Structure of Protein.   | <b>05</b> |
|             | (c) Write a note on Structure of RNA.   | <b>05</b> |
| <b>Q.2</b>  | (a) Discuss the Initiation, Elongation and Termination of Protein Biosynthesis.                       | <b>06</b> |
|             | (b) Write a note on Denaturation of Protein.  | <b>05</b> |
|             | (c) Define Porphyrin and Give the Biosynthesis of Heme.   | <b>05</b> |
| <b>Q.3</b>  | (a) Write a note on ETC.  | <b>06</b> |
|             | (b) Discuss the Enzyme involve in Biological oxidation.   | <b>05</b> |
|             | (c) Write a note on Inhibitors of Oxidative Phosphorylation.  | <b>05</b> |
| <b>Q.4</b>  | (a) Write a note on Oxidative Phosphorylation.  | <b>06</b> |
|             | (b) Discuss the Concept of Free energy.   | <b>05</b> |
|             | (c) Discuss the DNA repair mechanism.   | <b>05</b> |
| <b>Q.5</b>  | (a) Discuss the Transamination and Deamination in detail.   | <b>06</b> |
|             | (b) Discuss the synthesis of RNA from DNA template.   | <b>05</b> |
|             | (c) Write a note on Genetics Code.  | <b>05</b> |
| <b>Q. 6</b> | (a) Give the Reaction of Urea Cycle and discuss the metabolic disorder of Urea Cycle.                 | <b>06</b> |
|             | (b) Give the reaction of Pyrimidine biosynthesis.   | <b>05</b> |
|             | (c) Discuss the Lac Operon Concept.   | <b>05</b> |
| <b>Q.7</b>  | (a) Give the reaction of Purine nucleotides.  | <b>06</b> |
|             | (b) Write a note on DNA Replication.  | <b>05</b> |
|             | (c) Discuss the Southern Blotting technique as an analytical tool for identification of nucleic acid. | <b>05</b> |

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