

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER-IV • EXAMINATION – SUMMER-2017

Subject Code: 2240003

Date: 09/05/2017

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.

- | | | |
|-------------|--|-----------|
| Q.1 | (a) Define and classify Proteins. Describe the α -helical structure of Protein. | 06 |
| | (b) Describe in brief the Urea Cycle. | 05 |
| | (c) Write a note on metabolism of sulphur containing amino acids. | 05 |
| Q.2 | (a) What are porphyrin? Write a note on its biosynthesis. | 06 |
| | (b) Describe the steps involved in formation of bile pigments. | 05 |
| | (c) Write a note on metabolism of purines. | 05 |
| Q.3 | (a) Write a note on damage and repair of DNA. | 06 |
| | (b) Describe in brief polymerase chain reactions. | 05 |
| | (c) Explain regulation of gene expression. | 05 |
| Q.4 | (a) Define oxidative phosphorylation. Discuss inhibitors of oxidative phosphorylation. | 06 |
| | (b) Describe the enzymes involved in biological oxidation. | 05 |
| | (c) Write a note on ETC. | 05 |
| Q.5 | (a) Describe the extraction and purification of protein and nucleic acids. | 06 |
| | (b) What is the use of spectrophotometry in biochemistry? | 05 |
| | (c) Write a note on different chromatographic techniques used in biochemistry. | 05 |
| Q. 6 | (a) Write a detailed account on Lac Operon Concept. | 06 |
| | (b) Describe in detail transamination and deamination reactions for amino acids. | 05 |
| | (c) Explain the pyrimidine biosynthesis with its regulation. | 05 |
| Q.7 | (a) Write a note on Metabolism of Phenylalanine. | 06 |
| | (b) Explain the genetic code with its characteristics. | 05 |
| | (c) Describe the Watson and Crick Model of DNA Structure. | 05 |
