

**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.

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

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