Seat No.: _____ Enrolment No. _____

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**

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