Seat No.: _____ Enrolment No.:_____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. - SEMESTER– VI • EXAMINATION – SUMMER-2016

Subject Code: 260003 **Date:03/05/2016**

Subject Name: Pharmaceutical Chemistry – VII (Biochemistry)

Time: 10:30 AM to 1:30 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)**	Explain major stages involved in Cholesterol biosynthesis along with their regulation.	**06**
	(b)	What is ketouria? Write about ketogenesis and its utilization.	**05**
	(c)	Describe respiratory chain and its control.	**05**
Q.2	**(a)**	Describe beta oxidation of Palmitic acid and give its energetic. Write in brief about alpha and omega oxidation.	**06**
	(b)	Write the reactions involved in Urea Cycle and write its metabolic disorders.	**05**
	(c)	Write about enzymes and coenzymes involved in biological oxidation.	**05**
Q.3	**(a)**	What is nitrogen balance? Describe metabolism of ammonia and nitrogen containing monomer.	**06**
	(b)	Write about formation of Uric acid and disorders associated with it.	**05**
	(c)	Discuss metabolism of water and water balance.	**05**
Q.4	**(a)**	Write in detail about Transcription.	**06**
	(b)	Describe DNA repair mechanism.	**05**
	(c)	Write about biochemical role and deficiency syndrome of sodium and potassium in body.	**05**
Q.5	**(a)**	Enlist the aromatic amino acids and give their structure. Describe biosynthesis of phenylalanine and tyrosine.	**06**
	(b)	Explain Operon concept.	**05**
	(c)	Discuss biosynthesis of Porphyrins and its role in Heme biosynthesis.	**05**
Q. 6	**(a)**	Define Oxidative Phosphorylation .Give mechanism of Oxidative Phosphorylation and its significance.	**06**
	(b)	Name the techniques used in biochemistry and write about the Chromatographic technique.	**05**
	(c)	Write about the regulation of Gene expression.	**05**
Q.7	**(a)**	What is Polymerase chain reaction? Write a note on Genetic Engineering.	**06**
	(b)	Discuss various deamination and transamination reactions involved in amino acid metabolism.	**05**
	(c)	Describe biosynthesis of fatty acids.	**05**

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