Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2014

Subject Code: 260003 **Date: 26-12-2014**

Subject Name: Pharmaceutical Chemistry-VII (Biochemistry)

Time: 02:30 pm - 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)**	Discuss about oxidative phosphorylation.	**06**
	(b)	Write a detail note on Lac operon.	**05**
	(c)	Discuss Polymerase chain reaction in detail.	**05**
Q.2	**(a)**	Define Recombinant DNA technology. Write a note on Genetic Engineering.	**06**
	(b)	Write brief note on replication of DNA.	**05**
	(c)	Write a short note on Genetic code.	**05**
Q.3	**(a)**	Discuss purine biosynthesis. Explain purine nucleotide interconversion.	**06**
	(b)	Discuss metabolism of sulphur containing amino acids.	**05**
	(c)	Explain urea cycle with its metabolic disorders	**05**
Q.4	**(a)**	Write short note on followings. 1. Water balance 2. Southern blotting technique	**06**
	(b)	Discuss the electrophoresis in detail.	**05**
	(c)	Write note on DNA repair mechanisms.	**05**
Q.5	**(a)**	Discuss biochemical importance of calcium and write its metabolic disorders.	**06**
	(b)	Give detail account on enzymes involved in biological oxidation.	**05**
	(c)	Write a note on β –oxidation of fattyacids.	**05**
Q. 6	**(a)**	Describe biosynthetic pathway of cholesterol.	**06**
	(b)	What are ketone bodies? Write note on ketogenesis along with its regulations.	**05**
	(c)	Discuss about respiratory chain with its role as energetic. What are the respiratory chain inhibitors?	**05**
Q.7	**(a)**	Discuss biosynthesis of Porphyrin.	**06**
	(b)	Discuss in detail isolation and purification of nucleic acids.	**05**
	(c)	What are the importances of bile pigments in human body? How it is formed and what are the implications of its metabolic disorders.	**05**

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