

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
