

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-IV • EXAMINATION – SUMMER-2018

Subject Code:2240003

Date:23/05/2018

Subject Name: Pharmaceutical Chemistry – V (Biochemistry – II)

Time: 10:30 AM TO 01:30 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) Enumerate various mechanism of oxidative phosphorylation and discuss chemiosmotic hypothesis in detail	06
	(b) Explain Urea Cycle along with its energetics	05
	(c) Write a short note on enzymes involve in biological oxidation	05
Q.2	(a) What is PCR? Write detail note about it with its application	06
	(b) Write note on inhibitors of Oxidative phosphorylation	05
	(c) Write about transamination and deamination reactions of amino acids	05
Q.3	(a) Describe the following terms : Gene, Chromosome, Nucleotide , Bioenergetics, zwitterions, Poly peptide	06
	(b) Discuss reactions of De Novo synthesis of Purine nucleotides	05
	(c) Write a note on isolation of nucleic acid	05
Q.4	(a) Explain in detail DNA replication process.	06
	(b) Describe secondary and tertiary structure of protein.	05
	(c) Describe porphyrin biosynthesis and define hyperbilirubinemia.	05
Q.5	(a) What is genetic code? Explain its characteristics in detail.	06
	(b) Discuss concept of Free – Energy.	05
	(c) Write a short note on Translation process.	05
Q. 6	(a) Discuss components and reactions of Electron Transport Chain.	06
	(b) Write a short note on Post Transcriptional Modification of mRNA	05
	(c) Classify protein according to their biological functions	05
Q.7	(a) Write a short note on gel electrophoresis.	06
	(b) Define and classify amino acids along with examples.	05
	(c) Discuss ATP – ADP cycle and give biosignificance of ATP.	05
