

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
