GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm-Semester-V May-2012 Examination
Subject code: 250003
Subject Name: Pharmaceutical Chemistry -V (Biochemistry)

Time: 02:30pm to 5:30pm

Date:18 -05-2012
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)	What are phospholipids? Classify them and write the functions of phospholipids.	**06**
	(b)	Describe the structures and function of mucopolysaccharides.	**05**
	(c)	What are fatty acids? Explain the various parameters measured to check the purity of fats and oils.	**05**
Q.2	(a)	Discuss the organization of protein structure. Write a note on the determination of primary structure of proteins.	**06**
	(b)	Describe the mechanism for transport of solutes (metabolites) and macromolecules across the biological membranes.	**05**
	(c)	Give an account on mechanism of enzyme action.	**05**
Q.3	(a)	What are co-enzymes? Write a note on the role of co-enzymes in enzyme action.	**06**
	(b)	Write a detailed note on iso-enzymes.	**05**
	(c)	Discuss in detail the regulation of enzyme activity.	**05**
Q.4	(a)	Define oxidative phosphorylation. Discuss chemiosmotic hypothesis in detail.	**06**
	(b)	Describe the components of electron transport chain and add a note on oxidation of NADH.	**05**
	(c)	Write a note on enzyme inhibition.	**05**
Q.5	(a)	Discuss the synthesis of glucose from non-carbohydrate sources.	**06**
	(b)	Explain the importance of Cori-cycle.	**05**
	(c)	Describe the role of hormones in maintenance of blood sugar level.	**05**
Q.6	(a)	Describe the hexose monophosphate shunt and add a note on its significance.	**06**
	(b)	Write a note on glycogen storage disease.	**05**
	(c)	Explain the uronic acid pathway in detail.	**05**
Q.7	(a)	Draw a schematic diagram explaining the various stages of TCA cycle. Add a note on the energetic of the cycle	**07**
	(b)	Write a detailed note on glycolysis. Describe the significance of Rapaport-Leubering cycle.	**09**

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