

UKA TARSADIA UNIVERSITY**Maliba Pharmacy College**B. Pharm 4th Semester Internal Examination April 2013**030020403- Pharmaceutical Biochemistry**

Time: 10:00 a.m. To 1:00 p.m.

Max. Marks: 70

Date: 02/05/2013

Instructions:

- Question no. 1 is compulsory.
- From Q.2 to Q.7 attempt any **four** questions.
- Make suitable assumption whenever necessary.
- Figures to the right indicate full marks.

Q.1	(a)	Answer the following: (any six)	06
	1	Define α -oxidation of fatty acid.	
	2	What is ω -oxidation?	
	3	What is alkaptonuria?	
	4	What is SAM?	
	5	Which amino acid gives biuret test positive?	
	6	Enlist miscellaneous fates produced from tryptophan.	
	7	Enlist ketone bodies with their structures.	
	8	Define gluconeogenesis.	
	(b)	Describe in brief: (any four)	08
	1	Comment: Sucrose is a non-reducing sugar.	
	2	Comment: DNA contains thymine instead of uracil.	
	3	Write a short note on Lesch Nyhan syndrome.	
	4	Draw the structures of purine and pyrimidine ring with numbering and sources of individual atom.	
	5	Write the effect of insulin on carbohydrate metabolism.	
	6	Draw a figure describing nitrogen cycle.	
Q.2	(a)	Discuss the transport mechanism across cell membrane.	04
	(b)	Write a note on biological significance of enzymes.	05
	(c)	Define oxidative phosphorylation. Discuss energetic and inhibitors of oxidative phosphorylation.	05
Q.3	(a)	Write about distribution of water in humans. Add a note on water balance.	04
	(b)	Define and classify vitamins. Discuss Folic acid.	05
	(c)	What are co-enzymes? Write a note on role of co-enzyme in enzyme action.	05
Q.4	(a)	What are carbohydrates? Describe reactions of monosaccharide.	04
	(b)	Discuss Embden-Mayerhof pathway with energetic.	05
	(c)	Write a note on pentose phosphate pathway.	05
Q.5	(a)	Classify amino acids with examples.	04
	(b)	Write a short note on urea cycle.	05
	(c)	Describe degradation of heme to bile pigments.	05
Q. 6	(a)	Classify lipids with examples.	04
	(b)	Write biosynthetic pathway of fatty acids.	05
	(c)	Write metabolic pathway of ketone bodies.	05
Q.7	(a)	Describe de novo synthesis of purine nucleotides.	04
	(b)	Discuss sulfur cycle in brief.	05
	(c)	Write in detail about the process of DNA replication.	05