

**UKA TARSADIA UNIVERSITY****Maliba Pharmacy College**B. Pharm 4<sup>th</sup> 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.

<b>Q.1</b>	<b>(a)</b>	<b>Answer the following: (any six)</b>	<b>06</b>
		1 Define $\alpha$ -oxidation of fatty acid.	
		2 What is $\omega$ -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>(b)</b>	<b>Describe in brief: (any four)</b>	<b>08</b>
		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.	
<b>Q.2</b>	<b>(a)</b>	Discuss the transport mechanism across cell membrane.	<b>04</b>
	<b>(b)</b>	Write a note on biological significance of enzymes.	<b>05</b>
	<b>(c)</b>	Define oxidative phosphorylation. Discuss energetic and inhibitors of oxidative phosphorylation.	<b>05</b>
<b>Q.3</b>	<b>(a)</b>	Write about distribution of water in humans. Add a note on water balance.	<b>04</b>
	<b>(b)</b>	Define and classify vitamins. Discuss Folic acid.	<b>05</b>
	<b>(c)</b>	What are co-enzymes? Write a note on role of co-enzyme in enzyme action.	<b>05</b>
<b>Q.4</b>	<b>(a)</b>	What are carbohydrates? Describe reactions of monosaccharide.	<b>04</b>
	<b>(b)</b>	Discuss Embden-Mayerhof pathway with energetic.	<b>05</b>
	<b>(c)</b>	Write a note on pentose phosphate pathway.	<b>05</b>
<b>Q.5</b>	<b>(a)</b>	Classify amino acids with examples.	<b>04</b>
	<b>(b)</b>	Write a short note on urea cycle.	<b>05</b>
	<b>(c)</b>	Describe degradation of heme to bile pigments.	<b>05</b>
<b>Q.6</b>	<b>(a)</b>	Classify lipids with examples.	<b>04</b>
	<b>(b)</b>	Write biosynthetic pathway of fatty acids.	<b>05</b>
	<b>(c)</b>	Write metabolic pathway of ketone bodies.	<b>05</b>
<b>Q.7</b>	<b>(a)</b>	Describe de novo synthesis of purine nucleotides.	<b>04</b>
	<b>(b)</b>	Discuss sulfur cycle in brief.	<b>05</b>
	<b>(c)</b>	Write in detail about the process of DNA replication.	<b>05</b>