Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Pharmacy First Year Examination June 2009

Subject code: 410004 **Subject Name: Biochemistry and Clinical Pathology.**
Date: 25/06/2009 **Time: 11:30am-2:30pm**
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 is Glycolysis? Describe various reactions of glycolysis process.	**08**
	(b)	Give energetics of aerobic and anaerobic glycolysis.	**02**
	(c)	What is Juvenile diabetes? Discuss in brief about Diabetes.	**06**
Q.2			
	(a)	Describe kreb's cycle along with its chemical reactions.	**08**
	(b)	Discuss briefly Hexose monophoshphate pathway and its biological significance	**04**
	(c)	Give the components of respiratory chain showing the sites of ATP formation.	**04**
Q.3			
	(a)	What is ammonia intoxication? Explain urea cycle with various biochemical reactions.	**08**
	(b)	Classify various amino acids.	**04**
	(c)	What is peptide bond? Enlist biological functions of protein.	**04**
Q.4			
	(a)	Define enzyme. Discuss various factors affecting enzyme activity.	**08**
	(b)	Explain general mechanism of enzyme action.	**04**
	(c)	Give an account of diagnostic importance and therapeutic uses of enzymes.	**04**
Q.5			
	(a)	Explain briefly various phases of protein biosynthesis.	**08**
	(b)	Enlist various differences between DNA and RNA. Write biological functions of nucleic acid.	**04**
	(c)	Write short note on Phenylketonuria.	**04**
Q. 6			
	(a)	Write in detail about Beta oxidation of fatty acid with its energetics.	**08**
	(b)	Give classification of Lipids.	**04**
	(c)	Enlist various abnormal constituents of Urine. Write clinical significance of each constituent	**04**
Q.7			
	(a)	How water metabolism is regulated? Explain.	**08**
	(b)	Discuss briefly biochemical importance of Iodine, Calcium, Zinc and Selenium.	**04**
	(c)	Discuss functions and deficiency diseases of Vitamin D and Vitamin E	**04**

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