

GUJARAT TECHNOLOGICAL UNIVERSITY
PHARM.D – YEAR -1- EXAMINATION –WINTER - 2018

Subject Code:818803**Date: 6/12/2018****Subject Name: Medicinal Biochemistry****Time: 10.30 A.M. TO 1.30 P.M.****Total Marks: 70****Instructions:**

- 1. Attempt any five questions.**
- 2. Make Suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

Q.1	(a) Discuss detailed reactions involved in HMP shunt alongwith its significance.	06
	(b) Write briefly on the different laboratory investigations employed to evaluate kidney functions.	04
	(c) What is DNA replication? Explain the role of DNA polymerase, DNA ligase and DNA helicase in the replication of prokaryotes.	04
Q.2	(a) Write short notes on (Any Two) 1. Lipoprotein 2. High energy compounds 3. Liver function tests	06
	(b) Discuss the process of active and passive transport across cell membrane.	04
	(c) What is oxidative phosphorylation? Write about mechanism of oxidative phosphorylation.	04
Q.3	(a) Describe detailed reaction involved in Krebs-Henseleit cycle as well as disorders associated with it.	06
	(b) What are ketone bodies? Write note on ketogenesis.	04
	(c) Write a note on DNA repair mechanisms.	04
Q.4	(a) Write a note on β -oxidation of fatty acids along with its energetics.	06
	(b) Write a note on Glycogenolysis in detail.	04
	(c) What is isoenzyme? Describe therapeutic and diagnostic applications of isoenzyme in detail.	04
Q.5	(a) Discuss components of the electron transport chain in detail.	06
	(b) Describe transamination and deamination reactions for amino acids metabolism in detail.	04
	(c) Write note on principle and applications of Radioimmuno assay (RIA).	04
Q.6	(a) Discuss the reactions involved in TCA Cycle. Explain amphibolic role of the cycle in detail.	06
	(b) Describe factors affecting enzyme action in detail.	04
	(c) Write a note on importance of water and water balance in human body.	04
Q.7	(a) Describe de novo synthesis of purine nucleus and conversion of IMP to AMP and GMP.	06
	(b) Describe detailed role of hormones in blood glucose homeostatis.	04
	(c) Write a note on Glycogen storage diseases.	04