

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 3- EXAMINATION –WINTER - 2018

Subject Code:BP303TP
Subject Name: Biochemistry
Time:10:30 AM TO 01:30 PM

Date: 06/12/2018
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) Classify carbohydrates. Describe the structure and functions of polysaccharides.	06
	(b) Define following: i) Anomers ii) Enantiomers iii) Epimers iv) Invert sugar v) Mutarotation	05
	(c) Write a note on TCA cycle with energetics.	05
Q.2	(a) Define following: Co-enzymes ii) Essential amino acid iii) Co-factor Allosteric site v) Apoenzyme vi) Feedback inhibition of enzyme	06
	(b) Discuss synthesis and significance of biological substances 5-HT and dopamine.	05
	(c) Discuss jaundice in detail.	05
Q.3	(a) Discuss in detail β -oxidation of saturated fatty acids with energetics.	06
	(b) Write a note on formation and utilization of ketone bodies.	05
	(c) Classify energy rich compounds and give significance of ATP.	05
Q.4	(a) Explain catabolism of phenylalanine and tyrosine.	06
	(b) Discuss the role of hormones in blood sugar homeostasis.	05
	(c) Define oxidative phosphorylation. Describe in detail substrate level phosphorylation.	05
Q.5	(a) Give biosynthesis and significance of Cholesterol.	06
	(b) Discuss following diseases: i) Atherosclerosis ii)Albinism	05
	(c) Explain catabolism of heme.	05
Q. 6	(a) Discuss competitive and non competitive enzyme inhibiton.	06
	(b) Discuss Michealis-Menten kinetic model for enzymes.	05
	(c) Explain in detail about the enzyme involved in biological oxidation.	05
Q.7	(a) Discuss Watson and Crick model of DNA structure.	06
	(b) Explain structure and functions of different types of RNAs.	05
	(c) Discuss purine nucleotides catabolism and Gout disease.	05
