Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – 3- EXAMINATION –WINTER - 2018

Subject Code: 2230003 Date: 10/12/2018

Subject Name: Pharmaceutical Chemistry-III (Biochemistry - I)

Time: 10:30 AM TO 01:30 PM 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 are Carbohydrates? Give classification of carbohydrates with examples.	**06**
	(b)	Define Following term: (a)Epimers (b)Anomers (c) Mutarotation (d) Reducing sugar(e) Mutarotation (f) Tautomerization	**05**
	(c)	Write Principle of (a) Seliwanoff ' s test (b) Osazone Test	**05**
Q.2	**(a)**	Discuss Glycolysis with energetics	**06**
	(b)	Discuss Citric acid cycle. How many molecule of ATP are produce in the cycle?	**05**
	(c)	Write short note on Gluconeogenesis.	**05**
Q.3	**(a)**	Give an account of Hexose monophosphate pathway and mention its importance.	**06**
	(b)	Give an account of Fructose metabolism in body?	**05**
	(c)	Short note on Role of Hormones in Maintenance of Blood Sugar Level.	**05**
Q.4	**(a)**	What are Phospholipids? Classify them and write the functions of phospholipids.	**06**
	(b)	Define Lipids. Classify them with example.	**05**
	(c)	What are fatty acids? Explain the various parameters measured to check the purity of fats and oils.	**05**
Q.5	**(a)**	Write a note on β –oxidation of fattyacids.	**06**
	(b)	Write note on Cholesterol biosynthesis.	**05**
	(c)	What are ketone bodies? Write note on ketogenesis along with its regulations	**05**
Q. 6	**(a)**	Define Enzyme and classify it.	**06**
	(b)	Explain Mechanism of Enzyme action.	**05**
	(c)	Write a note on Isoenzyme.	**05**
Q.7	**(a)**	Explain Metals and Vitamins as Co-enzyme and their Significance.	**06**
	(b)	Short Note on Mineral Metabolism.	**05**
	(c)	Discuss the process of active transport across cell membrane.	**05**

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