

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 3 EXAMINATION – SUMMER -2019**

**Subject Code: BP303TP****Date: 01-06-2019****Subject Name: Biochemistry****Time: 02:30 PM TO 05:30 PM****Total Marks: 80****Instructions:**

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

<b>Q.1</b>	(a) Enlist unsaturated fatty acids and discuss oxidation of omega-3 fatty acid	<b>06</b>
	(b) Discuss amphibolic nature of citric acid cycle.	<b>05</b>
	(c) Explain $\beta$ -oxidation of fatty acid	<b>05</b>
<b>Q.2</b>	(a) Explain the properties and identification tests of carbohydrate	<b>06</b>
	(b) Define: Iodine number, Saponification number, Acid number, Rancidity, Mutarotation	<b>05</b>
	(c) Write a note on TCA cycle	<b>05</b>
<b>Q.3</b>	(a) Discuss importance of Cori's cycle	<b>06</b>
	(b) Discuss the Synthesis of Glucose from Non-Carbohydrate sources	<b>05</b>
	(c) Write a note on regulation of enzyme activities	<b>05</b>
<b>Q.4</b>	(a) Write a note on galactose and fructose	<b>06</b>
	(b) Write a note on cholesterol biosynthesis	<b>05</b>
	(c) Discuss the transport mechanism across cell membrane	<b>05</b>
<b>Q.5</b>	(a) Describe the structures and function of mucopolysaccharides	<b>06</b>
	(b) Describe the Watson and Crick Model of DNA Structure	<b>05</b>
	(c) Discuss enzyme kinetics in brief and its mechanism of action	<b>05</b>
<b>Q. 6</b>	(a) Explain Metals and Vitamins as Co-enzyme and their Significance	<b>06</b>
	(b) Write a note on protein synthesis and inhibitors.	<b>05</b>
	(c) Write a note on Lipid Storage Diseases	<b>05</b>
<b>Q.7</b>	(a) Explain the genetic code with its characteristics	<b>06</b>
	(b) Explain in detail the process of RNA synthesis.	<b>05</b>
	(c) Describe significance of melatonin and dopamine.	<b>05</b>

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