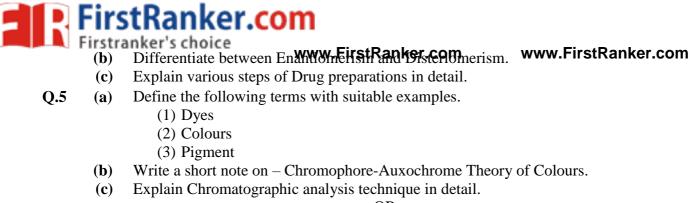


GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER- III (New) EXAMINATION – WINTER 2019 Subject Code: 3130407 Date: 3/12/2019			
Subject Name: Chemistry for Biotechnology Time: 02:30 PM TO 05:00 PM Total Marks: 70			
Instruc			
1.	Attem	pt all questions.	
		suitable assumptions wherever necessary.	
3.	Figur	es to the right indicate full marks.	
Q.1	(a)	Define the following terms with suitable examples.	03
· ·		(1) Hydrocarbon	
		(2) Valency	
		(3) Free Radical	
	(b)	What are Reactive Intermediates?	04
•	(c)	What are Dyes? Classify giving examples.	07
Q.2	(a)	Define the following terms with suitable examples. (1) Carbocataion	03
		(2) Carbanion	
		(3) Carbens	
	(b)	What is Fission Reaction? Explain giving examples.	04
	(c)	What are organic reactions? Explain in detail Electrophyllic aromatic	07
		substation reaction.	
		OR	~-
0.2	(\mathbf{c})	What are standard solution? Classify giving examples.	07
Q.3	(a)	Define the following terms with suitable examples. (1) Inductive Effect	03
		(2) Hyperconjugation	
		(3) Nitrine	
	(b)	Mention different types of carboxylic acids in detail.	04
	(c)	What are unit processes? Name few. Give symbolic representations of	07
		explaining flow sheet. OR	
Q.3	(a)	Define the following terms with suitable examples.	03
		(1) Nucleophile	
		(2) Electrohile	
		(3) Esterification	
	(b)	How will you manufacture Acetic Acid?	04
0.4	(\mathbf{c})	Mention various deravatives of Carboxyllaic Acid.	07 03
Q.4	(a)	Define the following terms with suitable examples. (1) Isomers	03
		(2) Chirality	
		(3) Rasemic Mixture	
	(b)	Write a short note on – Geometric Isomerism with examples.	04
	(c)	What is optical activity? Explain Enantiomers and Disteriomeris.	07
_		OR	
Q.4	(a)	Define the following terms with suitable examples.	03
		(1) Drugs(2) Analgesics	
		(2) Antipyretics drug	
		(-,	



04
07
03

(2) TLC (3) UV

Q.5

(a)

- Write a short note on Lambert-Beer's Law. **(b)**
- Explain different Spectroscopic techniques in detail with illustrations. (c)

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04

07

03

04

07