

No. of Printed Pages: 2

[A-13]

SARDAR PATEL UNIVERSITY

B.Sc. Industrial Chemistry

(Semester – 3rd) EXAMINATION

Date:27/09/2022

Course No.: US03CICV01

(UNIT PROCESSES)

Tota	l Marks: 70	Т	Time: 12-30 pm to	Lie pm
Q.1	Answer the given multiple			[10]
1.	Which of the following is a unit o		\$ A	
	a)Nitation	c)Amination		
	b)Reduction	d)filteration		
2.	Áromatic nitration is	type of reaction.		
	a)Nucleophilic substitution	c)Electrolysis		
	b)Electrophilic substitution	d)Precipitation	4	
3.	Which of the following is reducing agent?			-
	a)Fe+Acid	c)Caro's acid		
	b)Alkaline H₂O₂	d)KMnO4		
4.	Fuming sulphuric acid is	,		
	a)H2SO4+SO3	c)H2SO4+Cl		
	b)H2SO4+H2O	d)All of these		
5.	Sulfamates are used as	,		2
	a)Herbicides	c)Blood anticoagu	ılant	
	b)Sweetening agents	d)All of these		
6.	is the most commonly used catalyst in the oil hardening.			
	a)Nickel	c)Aluminium	Ü	
	b)Copper	d)Mercury		
7.	R-COOH +SOCl ₂ ?	,		
	a)R-COCI	c)R-SO ₃ H		
	b)R-O-Cl	d)No reaction		
8.	•	is insectically active		
	a)Alpha	c)Delta		
	b)Beta	d)Gamma		
9.	is not hydrolysis	•		
	a)Benzene	c)Water and Acid		
	b)Water	d)Water and Alka		
10.	KCN+H2OHCN+KOH is			
	a)Hydrolysis	c)Esterification		•
	b)Hydrogenation.	d)None of these		
Q.2. T	rue or False	,		[8]
1.	A vortex type of agitation is done	e in Biazzinitration.		
	Amines can be prepared by reduc		•	•
3.	In Barbet process mole of benzer		id is1to2 mole	
	Acetic acid is used with dichroma			
				. (-
	AlCl ₃ is used as a catalyst in prep			200 4000
6.	The direct reduction of carboxyl			are 300-400C
	Molasses is converted into alcoho			
8. 6	In acid hydrolysis, water and acid	is used as hydrolysis age	ent.	

Q.3 Short Answer Questions (Attempt any 10 out 0f 12)

- 1. Write different functions of H2SO4 in mixed acid.
- 2. Enlist the effects of nitrous acid on nitration.
- 3. List the factors which affects the Bechamp reduction.
- 4. Differentiate the term Sulfonation and Sulfation.
- 5. Write about chromic acid as an oxidizing agent.
- 6. Write applications of sulfonates.
- 7. List the catalysts used for Hydrogenation reaction.
- 8. Enlist various fluorinating agents.
- 9. Discuss about Iodination reactions.
- 10. Define term "Transesterification
- 11. Give mechanism of Fridel Craft Alkylation.
- 12. Enlist various Alkylating agents.

Q.4. Long Answer Questions (Attempt any Four)

[32]

[20]

- 1. Discuss Oxy-Nitration.
- 2. Explain different methods of reduction.
- 3. Write about manufacturing of Benzene Sulfonic acid by Barbet Process.
- 4. Write a note on: Oxydising agents and Oxidative reactions.
- 5. Discuss manufacturing of chlorobenzene.
- 6. Write about hardening of vegetable oil.
- 7. Write a note on: Hydrolysing agents.
- 8. Discuss about Catalytic Esterification.

