SEAT No.____

No. of Printed Pages: 2

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SARDAR PATEL UNIVERSITY

M. Sc. Semester - II Examination Tuesday, 10th April 2018 INDUSTRIAL CHEMISTRY Subject: Unit processes

Date: 10/04/2018

Course No.: PS02CICH23

Time: 10:00 a.m. to 01:00 p.m.

Marks: 70

Q. 1		Multiple choice questions (Attempt al	•	[08]
	ì	The difference in activation energy bet	ween various methods of chlorination	
		depends on the step.	·	
		(a) Chain initiation	(b) Chain termination	
		(c) Chain propagation	(d) None of these	
	IJ	Halogenations may carried out by	<u></u>	.3
		(a) Addition	(b) Substitution	
		(c) Replacement	(d) All of these	
	III	DVS is ratio of		
	•	(a) H ₂ SO ₄ :H ₂ O	(b) HNO₃:H₂O	
		(c) HCI:H ₂ O	(d) HCI:HNO ₂	
	١٧	Sulfation involes placement ofg	• •	٠
			(b) -SO ₃	
		(c) -OSO₃H		
	٧	Still with dephlagmating column is use		
			(b) Oxidation	
		• •	(d) Sulfation	
	Vi	Vinyl acetate is manufacture at°C	10/00/10/10/10	
	**	(a) 130	(b) 170	,
		(c) 190	(d) 210	
	VII	Which catalyst is used in manufacture	\ <i>'</i>	
	VII	(a) V ₂ O ₅	(b) BF ₃	
			- • -	
	17111	(c) AlCl ₃	(d) HNO ₃	
	VIII		e for the synthesis of alcohols containing	
		number of carbon atom.	(1) m	
		(a) 5	(b) 7	
		(c) 9	(d) 11	

[P. T. O.]

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Q. 2		American Alice College Control No. 1997		
	ł	Answer the following short question (Any seven)	[14]	
	il	Define unit process. Define fluorination.		
	111			
	IV.	Define alkylation.		
	V	Define nitration.		
	V	What is the role of sulfuric acid in the mixed acid?		
	VI	Write in brief about acid hydrolysis.		
		Draw the labeled diagram of horizontal absorber with disc mixer.		
	VIII	Define oxidation.	7	
	ΙX	Explain the effect of pressure on reaction rate during oxo synthesis.		
Q.3	(a)	With the help of flow diagram explain manufacture of aryl alkyl sulfonate.	[06]	
	(b)	With the help of labelled diagram explain manufacture of BHC.	[06]	
		.Or	[00]	
	(b)	Write explanatory note on alkylating agents.	[06]	
~ .	4		.,-,	
Q.4	(a)	With the help of flow diagram explain continuous nitration of benzene.	[06]	
	(b)	With the help of flow diagram explain manufacture of benzene sulfonic acid	[06]	
		Or	17	
	(b)	Write note on Schmidt and biazzi nitrator.	[06]	
Λ E	(-)	TAPAL AL T. A. CO. III	• •	
Q.5	(a)	With the help of flow diagram explain manufacture of ethanol.	[06]	
	(b)	With the help of flow diagram explain manufacture of ethyl acetate.	[06]	
	/LX	Or	• •	
	(b)	Write explanatory note on thermodynamics and mechanism of hydrolysis.	[06]	
	(-)	Material Control of the Control of t	• •	
	(a)	Write note on types of oxidative reactions.	[06]	
	(b)	With the help of flow diagram explain manufacture of butaraldehyde.	[06]	
	/1_1	Or Control of the Con		
	(b)	With the help of flow diagram explain manufacture of acetic acid.	[06]	i

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