K. K. Wagh Institute of Engineering Education & Research, Nashik

(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:V
Class:TY	Program:B.Tech Chemical Engineering
Branch Code:CHE	Pattern:2022
Name of Course:Chemical Process Industries	Course Code:CHE223006A
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains two page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome of the Question/sub-question.

		Marks	CO
Question No. 1			
1a)	What is MSDS? Explain its contents and importance in chemical industries.	(6)	CO1
Question No. 2			
2a)	Explain manufacturing of starch from maize.	(6)	CO2
Question No. 3			
3a)	Explain DCDA process of sulphuric acid production in detail.	(8)	CO3
	OR		
3b)	Describe the manufacturing of monocalcium phosphate. Write down its importance for crops.	(8)	CO3
3c)	Explain Synthetic Ammonia Process with major engineering problems.	(8)	CO3
	OR		
3d)	List the methods of sulphur production with uses. Elaborate Frasch process in details.	(8)	CO3
Question No. 4			
4a)	Explain the basic concept of polymerization and classify the different types of polymerization processes. Provide examples for each type.	(8)	CO4
	OR		
4b)	Describe alkylation refinery operation.	(8)	CO4
4c)	Discuss catalytic cracking operation in details.	(8)	CO4
	OR		
4d)	Discuss catalytic reforming operation in details.	(8)	CO4
Question No. 5			
5a)	Describe production of phenol.	(8)	CO5

OR

5b)	Describe production of formaldehyde.	(8)	CO5
5c)	Illustrate production of methanol. Discuss major engineering problems.	(8)	CO5

OR

5d)	Describe manufacturing of isopropanol with major engineering problems.	(8)	CO5

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