Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – IV • EXAMINATION – WINTER 2012

Subject code: 141303 **Date: 29/12/2012**

Subject Name: Chemical Engineering Processes

Time: 02.30 pm - 05.00 pm **Total Marks: 70**

Instructions:

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

Q-1	**(a)** Write manufacturing process of Ethyl acetate with flow diagram.	07
	(b) Explain Following Unit Operation in Detail. (i) Extraction (ii) Absorption.	07
Q-2	(a)Draw the Flow Diagram of Methanol and Write its Manufacturing Process.	07
	(b) Write the Production of Cellulose acetate and Explain Source of Pollution.	07
	OR	
	(b) Write the manufacturing process and Flow diagram of Aniline from Nitro Benzene.	07
Q-3	(a) Draw flow diagram of Hydrogen cyanide and write its manufacturing Process.	07
	(b) Explain manufacturing process of Phenol with flow diagram and explain the source of pollution	07
	OR	
	(a) Draw the flow diagram of mono chloro acetic acid and Explain its Manufacturing Process.	07
	(b) Write the manufacturing process of Urea with flow diagram and Explain Its source of pollution.	07
Q-4	(a)Draw flow diagram of Nitric acid and write its manufacturing process.	07
	(b) Write the manufacturing process of hydrogenation of cotton seed oil and Explain source of pollution.	07
	OR	
	(a) Draw and Explain in Detail. (i) Electrostatic Precipitator (ii) Heat Exchanger	07
	(b) Draw neat diagram and explain Froth flotation and Jigging.	07
Q-5	(a) Write manufacturing process and flow diagram of Vinyl chloride	07
	(b) Explain in detail Unit operation, (i) Magnetic separation (ii) Cyclone Separator.	07
	OR	
	(a) Explain manufacturing process of Furfural and draw flow diagram with source of pollution.	07
	(b) Explain in detail Unit operation (Any two) : (i) Grinding (ii) Crushing (iii) Distillation	07

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