

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – V EXAMINATION –WINTER - 2018

Subject Code:350502**Date: 29-11-2018****Subject Name: Mass Transfer - II****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

Q.1	(a)	Describe flash distillation with derivation of equation.	07
	(b)	Define Relative volatility, Equilibrium moisture, Dry bulb temperature	07
Q.2	(a)	Explain Total reflux ratio, Minimum reflux ratio and Optimum reflux ratio	07
	(b)	Write down difference between Azeotropic and Extractive distillation	07
		OR	
	(b)	Explain how to find number of trays in Enriching section by Mc-Cabe and Thiele method for distillation.	07
Q.3	(a)	Describe Construction and working of Tray drier.	07
	(b)	Write down classification of drying operation	07
		OR	
Q.3	(a)	Describe Construction and working of Vacuum drier	07
	(b)	Write down about Drying test and derivation of equation for drying time for constant rate period and falling rate period	07
Q.4	(a)	Definition and industrial application of Adsorption	07
	(b)	Explain Meir's theory	07
		OR	
Q.4	(a)	Explain Super saturation and methods to get it	07
	(b)	Define Ion-Exchange and its Principle and Applications	07
Q.5	(a)	Write a short note on Various types of pickings & packing arrangement	07
	(b)	Write down Principles and types of cooling towers	07
		OR	
Q.5	(a)	Describe Mechanically Agitated Vessels for gas liquid operations.	07
	(b)	Define absolute humidity, relative saturation and percentage saturation	07
