22PCM302P					Mass Transfer Lab.					
Teaching Scheme					Examination Scheme					
					Theory			Practical		Total Marks
L	T	P	C	Hr/Week	MS	ES	IA	LW	LE/Viva	
0	0	2	1	2	-	-	-	50	50	100

COURSE OBJECTIVES

Students develop sound working knowledge of various mass transfer equipment.

Week 1: Estimation of diffusivity coefficients for vapor in gas
Week 2: Separation of binary mixture using Simple distillation.
Week 3: Separation of binary mixture using Steam distillation.
Week 4: Separation of binary mixture using packed column distillation
Week 5: Determine the Vapor Liquid Equilibrium.
Week 6: Liquid-liquid extraction
Week 7: Drying characteristics of Vacuum/Tray/Rotary dryer.
Week 8: Mass transfer characteristics of Rotating disc contactor.
Week 9: Estimation of mass/heat transfer coefficient for cooling tower.
Week 10: Evaluation of Mass transfer coefficients for Surface Evaporation.
Week 11: Adsorption studies
Week 12: Leaching studies
Week 13: Demonstration of Gas – Liquid absorption

COURSE OUTCOMES

On completion of the course, student will be able to

CO1: Estimate diffusivity coefficients.
CO2: Estimate the separation operation by distillation and its equilibrium.
CO3: Analyze the drying characteristics.
CO4: Understand the working principle of cooling tower and evaporation
CO5: Demonstrate the adsorption and absorption operations.
CO6: Familiar with Extraction and leaching operations.

END-SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100 **Exam Duration: 3 Hr**

PART A: Evaluation based on the class performance and Laboratory book 50 Marks
PART B: Viva Examination based conducted experiments 50 Marks