Mass Transfer Operations Lab

1.1 Course Number: CH375L

1.2 Contact Hours: 0-0-2 Credits: 02

1.3 Semester-offered: 3rd Year- odd

2. **List of Experiments:**

S. No.	Experiments
1	To determine the diffusivity coefficient of the vapor (acetone) in air using Stephen tube at specific temperature
2	To study mass transfer operation in water cooling tower for different flow & thermos-dynamic conditions.
3	To analyze the performance of Bubble Cap Distillation Column under different operating conditions
4	To analyze the performance of Continuous Packed Bed Distillation Column under different operating conditions
5	To study the solid liquid extraction operation in a packed bed extraction unit and to calculate the percentage recovery of oil.
6	To study the evaluation of mass transfer coefficient in wetted wall column and to calculate the gas film coefficient in a wetted wall column using air-water system.
7	To study the absorption of carbon dioxide by aqueous sodium hydroxide solution in a sieve plate column.
8	To calculate the rate of drying for different air flow rates and different air inlet temperatures using Rotary Dryer
9	To calculate the Efficiency and percentage recovery of Batch Crystallizer.
10	To study the extraction of benzoic acid from toluene (dispersed phase) by water (continuous phase) in a packed bed
11	Determination of adsorption isotherm of acetic acid on activated charcoal.
12	Demineralization of water using two bed system.
13	Vapor liquid equilibrium curve for the given system of liquids.
14	To analyze the performance of Batch Distillation for a binary mixture