## B. Pharm | Sem - III CRSGSKT Pharm. Engg

Q.P. Code: 24938

(3 Hours)

N.B.: (1) All questions are compulsory

[Total Marks: 70

		(2) Begin new question on a new page.	
1.	(a)	Classify manometers and write a note on U-tube manometer.	3
	(b)	Discuss mass transfer in turbulent flow	3
	(c)	Explain any two ways of preventing caking of crystals	2
	(d)	Enlist factors influencing rate of evaporation	2
	(e)	Write a note on differential distillation	2
	(f)	Explain Aluminium and its alloys as material of construction.	3
2.	(a)	Explain with diagram the construction and working of reciprocating pumps	4
	(b)	Classify crystallizers. Explain the working of continuous crystallizer	4
		OR	
		Explain with neat diagram the construction and working of circulating- Magma Crystallizer.	4
,	(c)	Discuss dehydration of Alcohol with diagram.	3
3.	(a)	Classify flow meters and write a note on rotameter	4
		OR A	
		Write a note on Pitot tube	4
	(b)	Explain vacuum pumps as evaporator accessory.	3
	(c)	Discuss refrigeration equipment in details.	4
4.	(a)	Explain the experiment for understanding of Bernoulli's theorem	4
	(b)	Define different modes of heat transfer. Explain the statement of Fourier's	4
		law.	
		OR	
		With a neat labelled sketch explain the principle and operation of Shell	4
		and tube heat exchanger.	

(c) Explain Mier's theory of supersaturation

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5. (a	) Give the construction, principle and working of a centrifugal pump.	3
(b	Classify fractionating column and discuss in details plate column	4
	OR	
	Discuss the concept of plate efficiency and HETP	4
(c	Explain the different types of Fire extinguishers used in the Industry.	J. A.
6. (a	(a) Classify conveyors and write a note on screw conveyor.	3
	Explain with diagram forced circulation evaporator	4
. ,	Explain corrosion reactions on Single Metal and between two metals.	4
	OR	
	Explain any two types of localised corrosion in detail.	4

XZ-Con. 49-16.