Q.P. Code :06710

[Time: 3 Hours] **[Marks:70]**

Please check whether you have got the right question paper.

N.B: 1. All questions are compulsory.
2. Draw neat labelled diagrams wherever necessary.

Q.1	a)	Differentiate between Simple and U-tube manometer.	**03**
	b)	Outline the mass transfer in Turbulent flow.	**03**
	c)	What is caking and how do you combat caking.	**02**
	d)	Enlist various factors affecting rate of evaporation.	**02**
	e)	Draw neat and labelled diagram for vapour-liquid equilibrium of an ideal binary mixture.	**02**
	f)	Discuss Aluminum and its alloys.	**03**
Q.2	a)	Explain in detail positive displacement pumps.	**04**
	b)	Describe in detail Swenson Walker crystallizer OR Krystal crystallizer.	**04**
	c)	Discuss the theory and applications of Molecular Distillation.	**03**
Q.3	a)	With a neat diagram explain the working of Rotameter OR Venturimeter.	**04**
	b)	Classify condensors and elaborate on any one.	**03**
	c)	Elaborate on brine systems and absorption systems in refrigeration.	**04**
Q.4	a)	State and explain Bernoulli's theorem.	**04**
	b)	Describe with suitable examples basic principles involved in any one temperature measurement device.	**04**
		OR	**04**
		b)State Fourier's and Kirchhoff's law of Heat transfer.	**03**
		c) Explain Nucleation phenomena in crystallization.	
Q.5	a)	Elaborate on centrifugal Pumps .	**03**
	b)	Give an account on Theory of Fractionation OR Sieve Plate columns.	**04**
	c)	Discuss the Electrical Hazards encountered in manufacturing unit and steps involved in its prevention.	**04**
Q.6	a)	Explain in detail working of Pneumatic conveyors.	**03**
	b)	Elaborate on design and working of Climbing Film evaporator.	**04**
	c)	Write a short note on Galvanic OR Pitting corrosion.	**04**
