Q. P. Code: 33791

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

Please check whether you have got the right question paper

N.B. (1) All questions are compulsory
(2) Figures to the right indicate full marks.

1. a) With neat and labelled diagram differentiate between simple and differential manometer 3
   b) Explain mass transfer in laminar flow 3
   c) Classify crystallizers 2
   d) Enlist factors affecting rate of evaporation 2
   e) Writes note on simple distillation. 2
   f) What is Plastics, and explain in brief 3

Q2. a) Discuss principal, construction and working of Reciprocating pump 4
b) Elaborate design and working of agitated tank crystallizer.
OR Vacuum crystallizer. 4
c) Explain construction and working of falling film molecular distillation unit 3

Q. 3.a) Classify flowmeters and explain construction and working of Pitot tube. **OR**
Pressure differential flowmeter 4
b) Discuss expansion traps as evaporator accessories 3
c) Elaborate Brine system in refrigeration 4

Q4. a) Discuss an experiment to study laminar and turbulent flow in Fluids 4
b) Enlist modes of heat transfer and write notes on Stefans Boltzmann Law 4

OR

Write note on shell and tube heat exchanger
c) Explain Miers Theory of supersaturation 3

Q5. a) Explain design and working of centrifugal pump. 3
b) Elaborate on the construction and working of sieve plate column 4

OR

Discuss on azeotropic distillation
c) Enlist type of fire and its prevention 4

Q6. a) Classify conveyors and discuss construction and working of belt conveyor 3
b) Elaborate on the construction and working of horizontal tube evaporator 4
c) Enlist types of factors affecting corrosion and explain any three factors in detail 4

OR

What is corrosion and discuss two methods to prevent corrosion.

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