

## Chemical Engineering Mass Transfer Questions & Answers

- Overall efficiency of the distillation column is
  - The ratio of number of ideal plates of actual plates
  - The ratio of number of actual plates to ideal plates
  - Same as the Murphree efficiency
  - Always more than the point efficiencyAns: A
- Cox chart is useful in the design of
  - Distillation column
  - Evaporator
  - Dryer
  - CrystalliserAns: A
- The dimension of diffusivity is same as that of the
  - density
  - molal concentration
  - kinematic viscosity
  - velocity headAns: C
- Flash distillation is suitable for the separation of components
  - having very close boiling points
  - which form maximum boiling azeotrope
  - having very wide boiling points
  - which form minimum boiling azeotropeAns: C
- \_\_\_ is the separation technique used for desalination of sea water.
  - Thermal diffusion
  - Reverse osmosis
  - Adsorption
  - AbsorptionAns: B
- A binary mixture of benzene and cyclohexane is separated by
  - flash vaporisation
  - extractive distillation
  - solvent extraction
  - ordinary distillationAns: B
- Ordinary diffusion process is also called \_\_\_ diffusion.
  - Pressure
  - Thermal
  - Concentration
  - Forced

Ans: C

8. Large scale usage of flash distillation is practised in
- manufacturing
  - ammonia synthesis plant
  - polymerisation industry
  - petroleum refining

Ans: D

9. The reason for preferring packed towers over plate towers in distillation practice is that the packed tower operation gives
- low pressure drop and high hold up
  - high pressure drop and low hold up
  - low pressure drop and low hold up
  - high pressure drop and high hold up

Ans: C

10. Molecular diffusivity of a liquid
- Increases with temperature
  - Decreases with temperature
  - May increase or decrease with temperature
  - Is independent of temperature

Ans: C

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