

- Q.26 Write effect of impurities on crystal formation.
- Q.27 Derive the Rayleigh Equation.
- Q.28 Write about the baffle tube crystallization.
- Q.29 Write down a Note on Saturation and Super Saturation.
- Q.30 Write about concept of Dialysis.
- Q.31 Write industrial application of adsorption.
- Q.32 Discuss the Raoult's Law, Dalton's Law.
- Q.33 Write any 5 differences between distillation and extraction process.
- Q.34 Describe flash distillation.
- Q.35 Explain Mier's saturation theory.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Describe the construction and working of agitated tank crystallizer.
- Q.37 Write short note on any two:-
- Adsorption isotherms
 - Steam Distillation
 - Relative Volatility
- Q.38 Explain the packed column distillation column with neat and clean diagram.

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Roll No.

5th Sem / Chem, P & P Subject:- Mass Transfer - II

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Leaching is generally used for cement industries
- True
 - False
- Q.2 Solvent extraction is basically known as
- Gas-liquid extraction
 - Liquid - liquid extraction
 - Liquid- solid extraction
 - None of these
- Q.3 Ion exchange is an application of
- Adsorption
 - Membrane separation
 - absorption
 - None of these
- Q.4 Which of the following process can accelerate leaching?
- grinding
 - Crushing
 - Both
 - None

Q.5 Expand RO

- a) Reverse osmosis b) Reverse organ
- c) Reversible ozone d) None of above

Q.6 Solvent extraction is basically known as

- a) Gas-liquid extraction
- b) Liquid-liquid extraction
- c) Liquid-solid extraction
- d) None of above

Q.7 The equipment used for extractions are

- a) Mixer settler b) Spray tower
- c) Agitated tower d) All of above

Q.8 Simple distillation is a _____ process.

- a) Batch b) Continuous
- c) Adiabatic d) None

Q.9 Distillation is a _____ operation

- a) Solid-Liquid b) Gas-Liquid
- c) Liquid-Liquid d) Gas-Gas

Q.10 Liquid-liquid mixture is separated with solvent extraction by adding _____ solvent

- a) Soluble b) Insoluble
- c) Partially soluble d) none

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Explain the term R.O.

Q.12 Write any one example of Distillation process.

Q.13 Volatility is used for measure of _____

Q.14 What is Filtration.

Q.15 Write one equipment used for distillation?

Q.16 Write any one example of crystallization process.

Q.17 Solubility curve is a relation between _____ and _____

Q.18 Write formula for reflux ratio?

Q.19 What is loading?

Q.20 Name any one mass transfer process?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Explain various types of adsorption.

Q.22 Write concept of crystallation in brief.

Q.23 Write down a Note on Leaching Process.

Q.24 Explain mixer settler with construction and working.

Q.25 Writes about reflux ratio, total reflux ratio, Minimum reflux ratio and optimum reflux ratio.