

- Q.26 Write effect of impurities on crystal formation.

Q.27 Derive the Rayleigh Equation.

Q.28 Writes 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 Roault'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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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

a) True b) False

Q.2 Solvent extraction is basically known as

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

Q.3 Ion exchange is an application of

a) Adsorption b) Membrane separation
c) absorption d) None of these

Q.4 Which of the following process can accelerate leaching?

a) grinding b) Crushing
c) Both d) None

Q.5 Expand RO

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

Q6 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

Q8 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 Filteration.

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 crystallisation in brief.

Q.23 Write down a Note on Leaching Process.

Q.24 Explain mixer settler with construction and working.

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