Q.31 Write a note on adsorption isotherm.

Q.32 Explain applications of extractions.

Q.33 Writes about the baffle tube crystallization.

Q.34 Describe about the ultrafine filtration.

Q.35 Draw the explain Solubility Curve.

Section-D

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

Q.36 Write the construction & working with a diagram for any Leaching equipment.

Q.37 Write short notes on any two of the following :-

a) Rectification & Stripping

b) Steam Distillation

c) Agitated tower extractor

d) Dialysis

Q.38 Draw a neat diagram of vacuum crystallizer and explain its construction and working.

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

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 Relative humidity is the ratio of the

a) Partial pressure of the vapour to the vapour pressure of the liquid at room temperature

b) Partial pressure of the vapour to the vapour pressure of the liquid at gas temperature

c) Actual humidity to saturation humidity

d) None of these

Q.2 Distillation is possible only if the solution components are _____.

a) Volatile b) Non volatile

c) Both d) None

Q.3 On additional of solute in the solvent, the _____ of the solution decreases.

a) Freezing point b) Vapour pressure

c) Both d) None of these

Q.4 The driving force in dialysis is

a) Pressure difference b) Evaporation

c) Difference in fugacity d) Concentration difference

Q.5 The process of separating two liquids is knows as _____.

a) Distillation b) Absorption

c) Crystallisation d) None

Q.6 RO is

a) Reverse osmosis b) Reverse organ

c) Both A & B d) None of above

Q.7 Dew point of a gas-vapour mixture

a) Increases with temperature rise

b) Decreases with temperature rise

c) Decreases with decrease in pressure

d) None of the mentioned

Q.8 If the reflux is total, minimum stages are used

a) True b) False

Q.9 The equipment used for extractions are

a) Mixer settler b) Spray tower

c) Agitated tower d) All of above

Q.10 Which of the following is not an application transport in membrane?

a) Reverse osmosis b) Micro filtration

c) Dialysis d) Fraction distillation

Section-B

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

Q.11 Write one equipment used for distillation?

Q.12 Write any one example of crystallization process.

Q.13 Write full form of RO?

Q.14 Write an example of Azeotropic distillation.

Q.15 The function of reverse osmosis is _____.

Q.16 What is weeping?

Q.17 Solubility curve is a relation between_____ and ____.

Q.18 Write an example of differential extractor.

Q.19 Crystallization refers to the formation of _____.

Q.20 WRite full form of BET.

Section-C

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

Q.21 Describe the process of Azerotropic distillation.

Q.22 Writes about reflux ratio, total reflux ratio, Minimum reflux ratio and optimum reflux ratio.

Q.23 Explain about the commercial absorbents and their applications.

Q.24 Describe the working of agitated tank crystallizer.

Q25 Write about concept of Adsorption operation.

Q.26 Write any 5 differences between distillation and extraction process.

Q.27 Discuss the Roault's Law, Dalton's Law.

Q.28 Describe the mechanism of crystal formation.

Q.29 Describe about the filteration with diagram.

Q.30 Explain in detail process of Reverse Osmosis