No. of Printed Pages : 4
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220551

5th Sem. / Chemical
Subject : Mass Transfer Operations-II

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

Q.1 Extraction is a method of separating the constituents of a _____Mixture. (CO2)

a) Solid-Liquid b) Liquid-Gas

c) LIquid-Solid d) Liquid-Liquid

Q.2 Magma is a product obtained from _____ process. (CO3)

a) Distillation b) Extraction

c) Crystallization d) Adsorption

Q.3 Separating of a component from a solid by solvent is names as _____. (CO3)

a) Extraction b) Crystallization

c) Leaching d) Distillation

Q.4 The adsorbed solute is called_____. (CO4)

a) Adsorbate b) Adsorbent

c) Saturated solution d) Effluent stream

Q.5 The word still is commonly used for which distillation. (CO1)

a) Azeotropic b) Flash

c) Steam d) Simple

Q.6 Vapor in distillation is always at its_____. (CO1)

a) Boiling point b) Dew point

c) Bubble point d) Super heated state

Section-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Write one industrial application of distillation process. (CO1)

Q.8 Write any one limitation of McCabe Thiele method. (CO1)

Q.9 Write any one example of crystallization process. (CO3)

Q.10 Define Selectivity. (CO2)

Q.11 Expand the term R.O. (CO4)

Q.12 Write name of any one equipment of extraction operation. (CO2)

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Write any five differences between distillation and extraction process. (CO3)

Q.14 Explain in detail process of Reverse Osmosis. (CO4)

Q.15 Describe the concept of adsorption operation with an example. (CO4)

Q.16 Explain the concept of distillation in brief. (CO1)

Q.17 Describe the process of differential distillation in brief with neat diagram. (CO1)

Q.18 Define and explain concept of optimum reflux ratio. (CO1)

Q.19 Write in brief about any two problems encountered in distillation column. (CO1)

Q.20 Write the criteria for selection of solvent for extraction process. (CO2)

Q.21 Write effect of impurities on crystal formation. (CO3)

Q.22 Explain Mier's saturation theory. (CO3)

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

Q.23 Draw diagram and explain construction and working of Rotating Dish contactor for extraction process. (CO2)

Q.24 Describe the construction & working with a full labeled neat diagram for a Fractionation Colomn. (CO1)

Q25 Describe construction and working of Swenson walker crystallizer with neat and clean diagram. (CO3)