SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Define Mass Transfer. Classify Mass Transfer. Explain all with diagram.

Q.4 What is drying. Explain construction & working of Tray dryee with its application.

Q.5 Write short note on any three:-

i) HETP

ii) Raoults Law

iii) HTU

iv) Enthalpy

Q.6 Differentiate Humidification & Dehydification with example & also write about relative humidity, humid heat & humid volume.

Q.7 Write fick's Law of Mass Transfer and derive relation b/w film & overall Mass Transfer coefficient.

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120541/030541

4th Sem. / Chem / Chem (P&P)

Subject : Mass Transfer-I

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Classify Mass Transfer.

b) What is Desorption.

c) Write formula of Fick's Law.

d) What is weeping.

e) Define humidity.

f) What is Henry's Law.

g) Write two names of packing uses in Towel.

h) Define eddy Diffusion.

i) What is wet bulb temp.

j) Define Drying.

k) What is dew point.

l) Expand HTU.

m) Write about Mole fraction.

n) What is fluidised bed.

o) Define Batch process.

p) Write about equilibrium.

q) Define humid volume.

r) Write about film theory.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Define Mass Transfer & explain with diagram.

ii) Write role of diffusion in Mass Transfer.

iii) What is equilibrium, write condition of equilibrium b/w gas & liquid.

iv) Define Loading & Channeling.

v) What is Humidification.

vi) Write four uses of humidity chart.

vii) Draw two cooling tower arrangement.

viii) Define Rate of drying & draw its curve.

ix) Write diffusion coefficient measurement in Liquid.

x) Draw Rotary dryer.

xi) Describe about the properties of tower packing.

xii) Explain the desorption Phenomenon with example.

xiii) Describe about the choice of solvent in case of absorption.

xiv) Write the various type of applications of Mass transfer operation related to chemical Industries.

xv) Write Reynold Nimbu with its application.