## V. P. & R. P. T. P. Science College B.Sc. (Fifth Semester)

## Internal Test Monday 7<sup>th</sup> October, 2013 Subject code: US05CICV06 (Separation Techniques) Industrial Chemistry Vocational

Time: 3:30 pm to 5:00 pm				Total Marks: 30	
	Select right option	n from given in the fo	ollowing questions.		(06)
1	The reverse of absorption is?				
	(a) Desorption	(b) Scrubbing	(c) Adsorption	(d) None of these	
	HETP is the height of a section of packing that will give the same separation as the achieved with theoretical plate.				
	(a) 1	(b) 10	(c) 2	(d) 5	
Ш	The solubility of solute in a given solvent is at different temperature and it forms the basics of crystallization by cooling.				
	(a) Same	(b) Low	(c) Different	(d) Both (b) & (c)	
IV	Solubility is expressed as parts by weight solute per parts by weight solvent.				
	(a) 50	(b) 100	(c) 110	(d) 10	
V	Which operation is frequently practiced as last operation in manufacturing process?				
	(a) Filtration	(b) Evaporation	(c) Drying	(d) None of these	
VI	For ceramic products, which dryer is used?				
	(a) Tunnel	(b) Spray	(c) Tray	(d) None of these	
	Answer any three of the following:				(06)
I	Compare gas absorption and distillation.				
11	Define the following terms with reference to extraction				
	(a) Raffinate	a LIBRA			
111	Enlist various methods of Supersaturation.				
IV	Explain the preparation of solid used in Leaching.				
V	List the dryers commercially used for drying solids, semisolids and slurries.				
VI	Define equilibrium moisture and critical moisture content.				
	Give the construction and working of batch operated mixer-settler with neat sketch.				(06)
	OR				
	Write briefly on mechanically agitated vessels used for gas absorption.				(06)
	Explain the working of Basket extractor with suitable diagram.  OR				(06)
	Explain the construction and working of Krystal crystallizer with suitable diagram.				(06)
	Explain the construction & working of Drum dryer with neat diagram.				(06)
	OR				
	Explain the construction & working of Spray dryer with neat diagram.				(06)
		Select right option I The reverse of abse (a) Desorption II HETP is the height achieved with	Select right option from given in the following:  (a) Desorption (b) Scrubbing  II HETP is the height of a section of parachieved with theoretical plate.  (a) 1 (b) 10  III The solubility of solute in a given solvent basics of crystallization by cooling.  (a) Same (b) Low  IV Solubility is expressed as parts by weigh (a) 50 (b) 100  V Which operation is frequently practiced at (a) Filtration (b) Evaporation  VI For ceramic products, which dryer is use (a) Tunnel (b) Spray  Answer any three of the following:  I Compare gas absorption and distillation.  II Define the following terms with reference (a) Raffinate (b) Extract  III Enlist various methods of Supersaturation  IV Explain the preparation of solid used in L.  V List the dryers commercially used for dry  VI Define equilibrium moisture and critical in Give the construction and working of bath write briefly on mechanically agitated verification the construction and working of Explain the construction and working of Drove Explain the construction working of Drove Explain the construction & working of Drove Explain the Construction	Select right option from given in the following questions.  I The reverse of absorption is?  (a) Desorption (b) Scrubbing (c) Adsorption  II HETP is the height of a section of packing that will give achieved with theoretical plate.  (a) 1 (b) 10 (c) 2  III The solubility of solute in a given solvent is at differe basics of crystallization by cooling.  (a) Same (b) Low (c) Different  IV Solubility is expressed as parts by weight solute per (a) 50 (b) 100 (c) 110  V Which operation is frequently practiced as last operation in m (a) Filtration (b) Evaporation (c) Drying  VI For ceramic products, which dryer is used?  (a) Tunnel (b) Spray (c) Tray  Answer any three of the following:  I Compare gas absorption and distillation.  II Define the following terms with reference to extraction (a) Raffinate (b) Extract  III Enlist various methods of Supersaturation.  IV Explain the preparation of solid used in Leaching.  V List the dryers commercially used for drying solids, semisolid.  VI Define equilibrium moisture and critical moisture content.  Give the construction and working of batch operated mixer-secons  OR  Write briefly on mechanically agitated vessels used for gas all explain the working of Basket extractor with suitable diagram OR  Explain the construction and working of Krystal crystallizer with the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the construction and working of Drum dryer with neat diagram or the	Select right option from given in the following questions.  I The reverse of absorption is?  (a) Desorption (b) Scrubbing (c) Adsorption (d) None of these  II HETP is the height of a section of packing that will give the same separation as that achieved with theoretical plate.  (a) 1 (b) 10 (c) 2 (d) 5  III The solubility of solubile in a given solvent is at different temperature and it forms the basics of crystallization by cooling.  (a) Same (b) Low (c) Different (d) Both (b) & (c)  IV Solubility is expressed as parts by weight solute per parts by weight solvent.  (a) 50 (b) 100 (c) 110 (d) 10  V Which operation is frequently practiced as last operation in manufacturing process?  (a) Filtration (b) Evaporation (c) Drying (d) None of these  VI For ceramic products, which dryer is used?  (a) Tunnel (b) Spray (c) Tray (d) None of these  Answer any three of the following:  I Compare gas absorption and distillation.  II Define the following terms with reference to extraction  (a) Raffinate (b) Extract  III Enlist various methods of Supersaturation.  V Explain the preparation of solid used in Leaching.  V List the dryers commercially used for drying solids, semisolids and slurries.  VI Define equilibrium moisture and critical moisture content.  Give the construction and working of batch operated mixer-settler with neat sketch.  OR  Write briefly on mechanically agitated vessels used for gas absorption.  Explain the working of Basket extractor with suitable diagram.  OR  Explain the construction and working of Drum dryer with neat diagram.