Seat I	No.: _		Enrolment No			
В	. Pha		DLOGICAL UNIVERSITY llabus) • EXAMINATION – SUMMER • 2015			
Subject Code: 210005 Subject Name: Pharmaceutics-I			Date: 05-06-2015			
		2:30 pm - 05:30 pm	Total Marks: 80			
Instr		ns: Attempt any five questions.				
		Make suitable assumptions whe	erever necessary.			
	3.	Figures to the right indicate full	marks.			
Q.1	(a)	Differentiate: Filtration and Clar process.	ification. Discuss Darcy's Law for filtration	06		
	(b)	Describe meta filter with diagram		05		
	(c)					
		experimental filtration data: Pressure difference (lbf/inch²)	Specific cake resistance [(lbf)(h))/(lb)(ft)]			
		3	2.8			
		6	3.6			
Q.2	(a) (b) (c)	Derive the equation for centrifug centrifugal operations in pharma Describe perforated basket centr Write note on filter press.	•	06 05 05		
Q.3	(a)	Comment: Evaporation under re- Discuss BPR and Raoult's law.	duced pressure is always advantageous.	06		
	(b)	Describe multiple effect evapora	ition.	05		
	(c)	Discuss principle, advantages an	d disadvantages of film evaporators.	05		
Q.4	(a) (b) (c)	Explain: Evaporation and Distillation. Describe the rectification process. Describe the steam distillation process. A liquid mixture of ethanol and water is in equilibrium with vapor containing ethanol and water at a total pressure of 760 mmHg. A sample of vapor indicates that it contains 4.5 moles of ethanol for every 2.5 moles of water. If the liquid has a mole fraction of 0.62 ethyl alcohol, what is the relative volatility for the mixture?				
Q.5	(a) (b) (c)	Discuss the process of spray dry. Paracetamol granules containing being dried in a drier. Granules of per hr to 50 % moisture content.	be the drying curve with various phases. ing. 80 lb of water/ 100 lb of dry granules are dry at a constant rate of 5 lb water/ lb granules and then at a rate which is proportional to ime required to reach a water content of 1%	06 05 05		

Q. 6	(a)	Explain: WBT and DBT. Discuss applications of humidity control in pharmacy.	06
	(b)	Describe absorption refrigeration cycle with diagram.	05
	(c)	Draw a labeled diagram of humidifier with essential components.	05
Q. 7	(a)	Explain: HETP and reflux ratio. Write note on extractive distillation.	06
	(b)	Describe mechanical hygrometers with diagram.	05
	(c)	Discuss principle, advantages and disadvantages of lyophilization.	05
