75



BRAINWARE UNIVERSITY

Term End Examination 2019 - 20

Programme - Bachelor of Pharmacy

Course Name - Physical Pharmaceutics I

Course Code - BP302T

(Semester - 3)

Time allotted: 3 Hours	Full Marks:

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group -A

(Multiple Choice Type Question) $20 \times 1 = 20$ Answer all the questions 1. Solubility of a molecule in unionized form is known as (i) b. Un buffered solubility a. Buffered solubility d. None c. Intrinsic solubility According to USP, very soluble compound requires part of solvent for 1 part (ii) of solute. b. <1 a. 1-10 c. 30-100 d. 100-1000 (iii) Normality is a. gram mole in 1 lit. b. gram equivalent in 1 lit. d. none c. moles of solute in 1 kg solvent (iv) Vapour pressure is exerted by b. unsaturated vapour a. saturated vapour c. condensed liquid d. All In water and vapour system, what will be the degree of freedom? (v) a. 2 b. 1

c. 0

d. 3

(vi)	Propellants are				
	a. liquid in high pressure	b.	gaseous in low pressure		
	c. Both a & b	d.	none		
(vii)	Relative humidity is measured in				
	a. gm/cc	b.	mole/cc		
	c. percentage	d.	mole/ kg		
(viii)	Polymorph have				
	a. Different solubility	b.	Different melting point		
	c. Chemically identical structure	d.	All		
(ix)	Birefringent property is observed in				
	a. crystalline solid	b.	liquid crystal		
	c. fluid	d.	both a & b		
(x)	If plane polarized light rotates in clockwise direction				
	a. Dextro	b.	negative rotation angle		
	c. Levo	d.	none		
(xi)	Optical activity is measured by				
	a. Polarimeter	b.	Colorimeter		
	c. Spectrophotometer	d.	none		
(xii)	Factors affecting Dielectric constant is				
	a. Polarity of a compound	ь.	Field strength		
	c. Temperature	d.	All		
(xiii)	Tween 80 is a surfactant of type				
	a. Amphi-ionic	b.	Anionic		
	c. Cationic	d.	Non-ionic		
(xiv)	HLB range for solubilizing agent is				
	a. 15-18	b.	2-3		
	c. 8-16	d.	13-15		
(xv)	EDTA is				
	a. Bidentate	b.	Tridentate		
	c. Hexadentate	d.	Pentadentate		
(xvi)	Deferoxamine is used in over dose of				
	a. Iron	b.	Aluminium		
	c. Copper	d.	Both a & b		
(xvii)	Systemically available drug which can show pharmacological action is				
1	a. Bound drug		Unbound drug		
	c. Complete drug dose				
	c. Complete drug dose	d.	All		

(xviii)	Solutions having same osmotic pressure	are called			
	a. Isotonic	b. Isosmotic			
	c. Hypotonic	d. Hypertonic			
(xix)	Freezing point of blood plasma is				
	a. 0° C	b. 0.5° C			
	c0.52° C	d. 52° C			
(xx)	Which of the solution is isotonic solution	?			
	a. 0.9% NaCl solution	b. 0.09% NaCl solutio	n -		
	c. 0.9% NaCl solution	d. 66.67% NaCl soluti	on		
	Group -	В			
	(Short Answer Typ		$7 \times 5 = 35$		
Answer	any seven from the following				
2.	Write about different types of solubility	and solvent	5		
3.	What the factors affecting solubility?	and sorvent,	5		
4.	What is partition coefficient and diffusion of both.	on coefficient? Describe the sig			
5.	Describe phase diagram for three phase	system of ice, water and vapour	. 5		
6.	Define eutectic mixture with example of a phase diagram.				
7.	Define surface tension by wire frame apparatus.				
8.	How can we measure surface tension by capillary rise method?				
9.	Write a short note on chelate.	i i i i i i i i i i i i i i i i i i i	5 5 5		
10.	Write a note on buffer equation and buff	er capacity.	5 5		
	Group - 0	4 9			
	(Long Answer Typ	e Questions)	$2 \times 10 = 20$		
	ny two from the following				
11.	Express ideal and real solution by Rault	's law and ideal gas law.	10		
12. (a)	Describe absolute humidity and relative	humidity.	3		
(b)	Write notes on crystalline solid and amo	rphous solid.	7		
13.	Describe the application of complexation	and protein binding.	10		

Page 3 of 3