

BRAINWARE UNIVERSITY

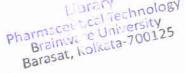
Term End Examination 2019 – 20

Programme - Bachelor of Pharmacy

Course Name - Pharmaceutical Analysis I

Course Code - BP102T

(Semester - 1)



Time a	llotted: 3	Hours
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Full Marks: 75

[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) $20 \times 1 = 20$ 1. Answer all the questions (i) Molarity is expressed as a. Number of moles of solute in 1000 ml b. Number of moles of solute in of solvent. 1000 ml of solution. c. Number of equivalent weights of solute d. None of the above. in 1000 ml solution. (ii) How many significant figures are there in 1.6750? a. five b. four c. three d. six (iii) Which of the following is an analytical separation method? a. Polarimetry b. Coulometry c. Liquid chromatography d. Refractometry The equivalent weight of oxalic acid is: (iv) b. 55 a. 63 c. 45 d. 100 An acid turns blue litmus paper (v) b. Yellow a. Red c. Violet d. Pink

b. Sulphate

Gutzeit apparatus is used in the limit test of

(vi)

a. Lead

	c. Iron	d. Arsenic				
(vii)	Potassium permanganate is used in					
	a. Non aqueous titration	b. Redox titration				
	c. Acid base titration	d. Argentometric titration				
(viii)	Non aqueous titration is carried out for					
	a. water insoluble drugs	b. weakly acidic drugs				
	c. weakly basic drugs	d. all of the above				
(ix)	Protophilic solvent is	solvent is				
	a. sodium hydroxide	b. lithium hydroxide				
	c. potassium hydroxide	d. all of the above				
(x)	In acidic solution the colour of phenolphthalein is					
	a. pink	b. colorless				
	c. blue	d. yellow Library				
(xi)	The titrant used in Permagnatometry is	Pharmace Lini er				
	a. KMnO ₄	b. KBr Barasat, Kolkata-70				
	c. I ₂	d. K ₂ Cr ₂ O ₇				
(xii)	The titrant used in Dichromatometry is					
	a. Potassium dichromate	b. Potassium bromide				
	c. Potassium chloride	d. Potassium bromate				
(xiii)	The titrant used in Bromatometry is					
	a. Potassium bromide	b. Potassium bromate				
	c. Both a and b	d. None of the above				
(xiv)	pH and pOH add upto					
	a. 14	b. 7				
	c. 8	d. 2				
(xv)	The unit of conductance is					
	a. Ohm ⁻¹	b. Mho				
V//SistN	c. Siemen	d. All of the above				
(xvi)	Adsorption indicators are used in					
	a. Gay-Lussac method	b. Mohr's method				
	c. Fajan's method	d. Volhard's Method				
(xvii)	Metal indicator is used in					
	a. Non-aqueous titration	b. Acid -base titration				
	c. Complexometric titration d. Potentiometric titration					
(xviii)	Potassium chromate (K ₂ CrO ₄) is used as an indicator in					
	a. Mohr's method	b. Volhard's method				
	c. Fajan's method	d. None				

(xix	()	What is the range of colour change of methyl orang	e?			
		a. 4.2 - 6.3	b. 8.3 - 10			
		c. 2.9 - 4.6	d. none of the	se		
(XX) I	Blank determination is done by omitting			Library	
		a. solvent	b. reagent	Pharmace	er tical Technology varie University	
		c. unknown compound	d. all of these	Barasat,	kolkata-7001 2 5	
		Group – B				
		(Short Answer Type Question	ons)		$7 \times 5 = 35$	
Ans	swer a	any seven from the following				
. 2.	D	Derive the Henderson Hasselbatch equation.			5	
3.	V	What is conductivity water and how it is prepared?			5	
4.	V	Write a short note on different kind of errors and ways to minimize them.			5	
5.	V	Write short notes on protophilic and amphiprotic solvents.		5		
6.	E	Explain Quinonoid theory of indicators in acid base titration.			5	
7.		What is the pH of a buffer with 0.7 M of CH ₃ COOH and 0.6 M of CH ₃ COONa? 5 K _a for acetic acid is 1.8 x 10 ⁻⁵ .				
8.	8. Describe the method for preparation and standardization of 0.1N oxalic acid solution.					
9.	Explain Werner's Co-ordination number. What are complexes and chelates? 2+3					
10. Write down the advantages of Gravimetric method. What are the applications 2.5+2.5 of Gravimetric method?						
		Group - C				
		(Long Answer Type Questic	ons)	2 >	10 = 20	
Answer any two from the following						
11	(a)	Write about redox indicators.			4	
	(b)	Explain Fajan's method of Argentometric titration	n.		6	
12.		Write about the different sources of impurities in	Pharmaceutical	substances	. 10	
13.	(a)	Explain different types of Complexometric titration	on.		5	
	(b)	Write a note on complexometric titration curve.			2.5	
	(c)	Explain masking and demasking phenomenon.			2.5	