Seat	No.: _	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
		<b>BPHARM – SEMESTER I • EXAMINATION – WINTER • 2015</b>	
	•	code: 2210003 Date: 02-01-2016	
Sub	ject l	Name: Pharmaceutical Analysis - I	
		:30 am - 01:30 pm Total Marks: 80	
Inst	ructi	ons:	
	2. N	ttempt any five questions. Iake suitable assumptions wherever necessary. igures to the right indicate full marks.	
Q.1	(a) (b)	Define validation. Enlist analytical validation parameter and explain it in detail. Discuss the importance of quality control and quality assurance in formulation analysis.	06 05
	(c)	Explain following terminology I. Calibration II. Sampling III. Molarity IV. Normality V. Error	05
Q.2	(a)	What is buffer solution? Derive Henderson Hasselbach equation for finding pH of buffer solution?	06
	<b>(b)</b>	Define Hydrolysis and derive equation for finding pH of aqueous solution of acetic acid with ammonium hydroxide.	05
	(c)	Enlist end point detection method in acid base titration and explain resonance theory.	05
Q.3	(a) (b)	Explain volhard's method.  Give comment  1. Mohr's titration is carried out in acidic media.  2. Water is differentiating solvent for HCL and CH <sub>3</sub> COOH.  3. Starch indicator should be freshly prepared.  4. Acetic acid is added in preparation of perchloric acid.  5. Electrolyte solution is used for wash precipitate.  Write note on kjeldahl method.	06 05
Q.4	(a) (b) (c)	Define oxidizing agent and reducing agent and explain redox indicator in detail. Enlist redox titration and explain iodine titration in detail. Describe diazotization nitrite titration.	06 05 05
Q.5	(a) (b) (c)	Explain ligand and sequestering agent. Write note on replacement titration. Write note on $p^M$ indicator. Differentiate the following with suitable example: Masking agent and Demasking agent	06 05 05
Q. 6	(a) (b) (c)	Give merit, demerit and application of non-aqueous titration. Write brief note on leveling and differentiating effect of solvent. Discuss about co-precipitation and post precipitation.	06 05 05
Q.7	(a) (b) (c)	Explain theory of von –weimarn's ratio for relative supersaturation. Write note on karl fischer titration. Write pharmacopoeial application of gravimetric analysis.	06 05 05

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