GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – III • EXAMINATION – WINTER • 2016

Subject Code: 230004   **Date: 25-11-2016**
Subject Name: Pharmaceutical Analysis - I
Time: 02:30 pm - 05:00 pm   **Total Marks: 80**

Instructions:
   1. **Attempt any five questions.**
   2. **Make suitable assumptions wherever necessary.**
   3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain terms 1. Molarity 2. Primary standard substance 3.Back titration 4.Self indicator 5. Post precipitation 6.LOQ	**06**
	(b)	Write a note on Diazotization titration.	**05**
	(c)	Write a note on common ion effect.	**05**
Q.2	**(a)**	What is error? Classify the error and how will you minimize the error?	**06**
	(b)	Differentiate between QA and QC.	**05**
	(c)	What is analytical method validation? Enlist validation parameter. Discuss any two parameters in detail.	**05**
Q.3	**(a)**	What is hydrolysis? Derive equation for finding pH of aqueous solution of salt of weak acid and strong base.	**06**
	(b)	Discuss Resonance theory of indicator.	**05**
	(c)	What is importance of non-aqueous titration? Discuss Differentiating and Leveling effect of solvent.	**05**
Q.4	**(a)**	Give the types of Redox titration. Discuss Permanganometry in detail.	**06**
	(b)	Discuss various types of indicators used in redox titration.	**05**
	(c)	Differentiate Iodometric and Iodimetric titrations.	**05**
Q.5	**(a)**	Enlist the different types of complexometric titration. Explain Fajan's method in detail.	**06**
	(b)	What is Argentometric titration? Write a note on Volhard's method.	**05**
	(c)	Explain masking and demasking in complexometric titration.	**05**
Q. 6	**(a)**	What is Co-precipitation? Give types of Co-precipitation and note on common source of co-precipitation.	**06**
	(b)	What is gravimetric analysis? Enlist the steps involved in gravimetric analysis.	**05**
	(c)	Ksp of PbI_2 is 7.2 X 10-9. Calculate molar solubility and solubility in g/ml. Molecular weight of PbI_2 is 461 g/mol.	**05**
Q.7	**(a)**	Write a note on Karl-Fischer titration	**06**
	(b)	Explain: Why multiple extraction is better than single extraction?	**05**
	(c)	Give detail note on continuous extractions.	**05**

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