Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 1 EXAMINATION – WINTER -2019

Subject Code: 2210003 **Date: 03-01-2020**

Subject Name: Pharmaceutical Analysis-I

Time: 10:30 AM TO 01:30 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)**	Discuss neutralization curve in acid base titration.	**06**
	(b)	Define Errors and explain classification of errors and minimization of errors.	**05**
	(c)	Write comment on: i). Buffered conditions is required in complexometric titration. ii). Acetic acid is a leveling solvent as well as differentiating solvent.	**05**
Q.2	**(a)**	Explain theories of acid base indicators.	**06**
	(b)	Briefly discuss principle and steps involved in gravimetric analysis.	**05**
	(c)	Write a short note on Mohr's method.	**05**
Q.3	**(a)**	Derive Henderson-Hasselbach equation for pH determination.	**06**
	(b)	Write a note on Karl-Fischer titration.	**05**
	(c)	i). Justify "EDTA is used as a chelating agent in complexometric titrations". ii). Differentiate Iodometric and Iodimetric titrations.	**05**
Q.4	**(a)**	Write a short note on different types of EDTA titrations.	**06**
	(b)	Discuss the estimation of calcium gluconate.	**05**
	(c)	What is validation? Explain all validation parameters.	**05**
Q.5	**(a)**	Discuss solvents used in non-aqueous titration.	**06**
	(b)	Write a short note on Volhard's method of precipitation titration.	**05**
	(c)	Briefly discuss potassium permanganate titration.	**05**
Q. 6	**(a)**	What is hydrolysis? Derive equation for finding pH of aqueous solution of salt of weak acid and strong base.	**06**
	(b)	Write a note on common ion effect.	**05**
	(c)	Define: Standardization, Buffer, Co-precipitation, Post precipitation. pH.	**05**
Q.7	**(a)**	Write basic Principle, methods and application of diazotisation titration.	**06**
	(b)	Discuss at length titrants used in non-aqueous titration.	**05**
	(c)	Enumerate types of redox titration and explain any one in detail.	**05**

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