Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm - SEMESTER–IV • EXAMINATION – SUMMER - 2018

Subject Code:240004 **Date: 18/05/2018**

Subject Name: Pharmaceutical Analysis-II

Time: 10.30 AM -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)**	Write down classification of instrumental methods of analysis with its advantages and limitations.	**06**
	(b)	Discuss signal to noise ratio. Enlist different validation parameters	**05**
	(c)	Explain the following. 1. Kohlrausch's law 2. Retention time 3. Racemic mixture 4. Diffusion current 5. Validation	**05**
Q.2	**(a)**	What is chromatography? Discuss theories of chromatography.	**06**
	(b)	Explain different development techniques in paper chromatography.	**05**
	(c)	Discuss factors affecting conductance.	**05**
Q.3	**(a)**	Discuss ideal characteristic of reference electrode. Describe any one in detail.	**06**
	(b)	Explain different types of conductometric titrations.	**05**
	(c)	Write a short note on TLC.	**05**
Q.4	**(a)**	Enlist different indicator electrodes. Describe glass electrode in detail.	**06**
	(b)	Discuss stripping voltametry with any two stripping techniques.	**05**
	(c)	Write down applications of potentiometry.	**05**
Q.5	**(a)**	Explain current -voltage curve in detail.	**06**
	(b)	Write a brief note on amperometric titrations.	**05**
	(c)	Describe dropping mercury electrode at length.	**05**
Q. 6	**(a)**	Discuss factors affecting TG curve.	**06**
	(b)	Explain the following. 1. Optical activity 2. Dead stop end point method	**05**
	(c)	Write in detail about principle and applications of DSC	**05**
Q.7	**(a)**	What is zone broadening? Explain the sources of zone broadening.	**06**
	(b)	How will you improve column efficiency? Explain in detail.	**05**
	(c)	What is specific conductance. Write a short note on conductivity cell.	**05**

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