Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BPHARM – SEMESTER II • EXAMINATION – WINTER - 2013

Subject code: 2220003 **Date: 18-12-2013**

Subject Name: Pharmaceutical Analysis-II

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 the advantages and disadvantages of instrumental analytical methods. Classify various instrumental analytical methods.	**06**
	(b)	Define chromatography. Describe the theories of chromatographic separation of the components.	**05**
	(c)	Define following terminology. (i) Asymmetric factor (ii) Resolution (iii) Dead time (iv) Retention time (v) HETP	**05**
Q.2	(a)	Describe the principle of paper chromatography and discuss its various development techniques.	**06**
	(b)	Write a note on size exclusion chromatography and Ion exchange chromatography.	**05**
	(c)	Discuss different steps involved in thin layer chromatography.	**05**
Q.3	(a)	Classify electroanalytical methods of analysis.	**06**
	(b)	Explain about kohlrausch law and its application.	**05**
	(c)	Discuss factors affecting conductance.	**05**
Q.4	(a)	Explain about reference electrode and discuss calomel electrode.	**06**
	(b)	Discuss the principle, advantages and application of potentiometric titration.	**05**
	(c)	Write the factors affecting limiting current and diffusion current.	**05**
Q.5	(a)	Write a note on dropping mercury electrode.	**06**
	(b)	Write a short note on amperometric titration.	**05**
	(c)	Enumerate various pulse polarographic techniques. Explain in detail about differential pulse polarography.	**05**
Q. 6	(a)	Write a note on differential scanning calorimetry.	**06**
	(b)	Explain principle and applications of polarimetry.	**05**
	(c)	Explain about specific rotations and optical rotatory dispersion.	**05**
Q.7	(a)	Write note on continuous extraction.	**06**
	(b)	Describe in detail the oxygen combustion flask method.	**05**
	(c)	Write note on gasometric method.	**05**

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