Seat	No.: _	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY M. Phorm. SEMESTER. LA EXAMINATION. WINTER 2013	
Sub	ject (M. Pharm. – SEMESTER – I • EXAMINATION – WINTER 2013 Code: 910107 Date: 23-12-2013	
	•	Name: Pharmaceutical Analysis-I	
	e: 10 ructio	0.30 am - 01.30 pm Total Marks: 80	
111501	1.	Attempt any five questions.	
		Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What is analytical method validation? Enlist different parameters and discuss any two in detail.	00
	(b)	Explain in detail the application of instrumental methods of analysis in the development of medicines.	05
	(c)	Discuss the importance of pharmaceutical analysis in pharmaceutical science.	05
Q.2	(a)	Short note: Calibration and validation of instruments (a) UV Spectrophotometer, (b) IR Spectrophotometer How will you also if y ion salestive electrodes? Give the importance of ion	06
	(b) (c)	How will you classify ion selective electrodes? Give the importance of ion selective electrode in drug analysis. Discuss in detail calibration and validation of HPLC.	05
Q.3	(a)	Enumerate the methods used for analysis of excipients in solid state. Discuss	00
	(b)	application of any one in detail. Write down the principles involved in the use of N_1 -naphthyl ethylene diamine	05
	(c)	and <i>p</i> -dimethylaminobenzaldehyde. Write a short note on principles and procedures involved in physicochemical methods of analysis for dosage forms containing Barbiturates.	05
Q.4	(a)	Describe importance of Folin - Ciocalteau and 2, 4-dinitrophenylhydrazine reagent in pharmaceutical analysis. Give principles involved in the use of both	00
	(b)	reagents in pharmaceutical analysis. Describe the various procedures for elemental analysis of (a) sodium and (b) sulphur.	05
	(c)	Enumerate the principle and procedures involved in use of ninhydrin in pharmaceutical analysis.	05
Q.5	(a) (b)	Describe methods useful for estimation of aldehydes and amines. Write down a note on principle and procedures involved in quantitative	06 05
	(c)	determination of hydroxyl groups. Explain the principle and procedure involved in various physicochemical method of analysis of various dosage forms containing sulpha drugs.	05
Q. 6	(a)	Discuss the methods involved in elemental analysis of chlorine, bromine and iodine.	06
	(b) (c)	Write a note on methods for the estimation of glycosides of digitoxin. Define alkaloids. How will you estimate Cinchona alkaloids? Discuss in detail.	05 05
Q.7	(a)	Enumerate various methods used for analysis of erythromycin and penicillin with principles.	06
	(b) (c)	How will you estimate vitamins like vitamin C and B2? Discuss the analytical procedure used for the determination of steroidal drugs	05 05
