

Roll No.: _____

Enrollment No. _____

PARUL UNIVERSITY**PARUL INSTITUTE OF PHARMACY****M.PHARM FIRST SEMESTER · FIRST INTERNAL EXAMINATION: 2018-19****Discipline: Pharmaceutical Quality Assurance****Subject Name: Modern Pharmaceutical analytical technique****Subject Code: MQA101T****Time: 10:00 am to 11:30am****Date: 17/09/18****Total Marks: 30****Instructions:**

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1	Long Answers: (Any One)	
	(1) i) Classify chromatographic techniques. Describe principle of chromatography. ii) Write a note on GC components: Carrier gas, Injection port, Column oven and Column.	10
	(2) Describe functional groups presents in the compound I & II based on given data: <u>Compound No.I</u> <ul style="list-style-type: none"> • Mol.Formula: $C_7H_5NO_3$ • IR Frequency(cm^{-1}): 3030, 2840, 2730, 1708, 1608, 1538, 1348, 1201, 855 <u>Compound No.II</u> <ul style="list-style-type: none"> • Mol.Formula: C_8H_7N • IR Frequency(cm^{-1}): 3017, 2910, 2860, 2210, 1600, 1518, 1450, 1380, 1300, 1220, 780, 690 	10
Q.2	Short Answers: (Any Four)	
	(1) Comment following: i) Lycopene gives red colour to tomato. ii) If UV spectra of two different compounds are same they have same chromophore. (Explain with suitable example).	05
	(2) Compare HPTLC with TLC and HPLC.	05
	(3) Write a note on LC-MS.	05
	(4) Write a note on factors affecting UV-Visible spectral characteristic.	05
	(5) Explain sensitivity of the analytical techniques giving suitable examples.	05