

PARUL UNIVERSITY
FACULTY OF PHARMACY
Pharm.D April 2019 Examination

Year: 3**Subject Code: 08207302****Subject Name: Pharmaceutical Analysis****Date: 18/04/2019****Times: 10:00am To 01:00pm****Total Marks: 70****Instructions**

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

Q.1 Essay Type Questions. (any 2 out of 3) (15 Mark Each) (30)

1. Briefly explain the Diode array detector with labelled diagram, Describe Monochromator and give a short note on effect of solvent on absorption spectra.
2. Describe labelled diagram of HPLC Instrumentation, explain Reciprocating pump and injectors in detail.
3. Enlist electrodes used in Potentiometry titration and explain construction and working of enlist electrodes with labelled diagram.

Q.2 Short Essay Type Questions. (any 4 out of 5) (5 Mark Each) (20)

1. Discuss about Theory of HPLC Chromatography.
2. Briefly explain types of Ions produced in MASS spectroscopy.
3. Describe types of Conductometry titration with graph and examples.
4. Describe steps involve in HPTLC chromatography and give the name of detector.
5. Describe Beer-Lambert's Law, application and its deviation.

Q.3 Short Answers. (2 Mark Each) (20)

1. Describe Polarogram including explain terms.
2. Discuss basic principle and application of NMR spectroscopy.
3. Explain types of transition in IR spectroscopy.
4. Differentiate between HPTLC and HPLC.
5. Explain principle of fluorescence and phosphorescence.
6. Explain development techniques for paper chromatography.
7. Describe working Principle of DME.
8. Differentiate between DSC and DTA Techniques.
9. Write a short note on ICH guideline.
10. What is Validation? Enlist Equipment validation parameters.