

FACULTY OF PHARMACY**M. Pharmacy (Pharma. Analysis) II-Semester (PCI) (Suppl.) Examination,****January 2020****Subject : Advance Instrumental Analysis****Time: 3 Hrs****Max. Marks: 75****Note:** Answer Any Five Questions. All Questions Carry Equal Marks.

1. a) Explain abt varis parameters like peak shape. Capacity factor, plate number plate height and resolutions to be considered in HPLC chromatogram 10
b) Write abt HPLC importance in chiral analysis of pharmaceuticals? 5
2. a) Discuss abt ion pair chromatography 5
b) Explain the instrumentation and pharmaceutical applications of HPTLC 10
3. a) Write the principle and instrumentation of SFC? 7
b) Explain abt CE -MS Hyphenation? 8
4. a) Elaborate with neat sketch diagram different types of ionization techniques and analyzers in mass spectrometry? 15
5. a) What do y mean by chemical shift? Explain the varis factors influencing it? 10
b) Write abt correlative spectroscopy? (COSY) 5
6. a) Write abt varis columns used in GLC? 8
b) Discuss the principle and applications of size exclusion chromatography? 7
7. a) Explain abt HILIC approach in HPLC? 7
b) Discuss abt C ¹³ NMR 8
8. a) Explain abt Q -TOF hyphenation (MS.MS) 7
b) Write the principle and stationary phases used in affinity chromatography? 8
