

Subject Code: IP31A/R13

M. Pharmacy I Semester Regular/Supply Examinations, April, 2015

MODERN ANALYTICAL TECHNIQUES

(Common to All Specializations)

Time: 3 Hours

Max Marks: 60

Answer any FIVE questions

All questions carry EQUAL marks

1. (a) Add a note on various sampling methods of IR spectroscopy.
(b) Enumerate the principle, instrumentation of spectrofluorimetry technique.
2. (a) Define chemical shift and factors affecting chemical shift in NMR spectroscopy.
(b) Explain principle, instrumentation of Atomic Emission spectroscopy.
3. (a) Write about different interfaces used in LCMS & GCMS.
(b) Write applications of any two Hyphenated techniques.
4. (a) Explain Instrumentation of HPLC with neat diagrams
(b) Define supercritical fluid with examples and properties.
5. (a) Add a note on Inductively coupled plasma emission spectroscopy.
(b) Give principle and applications of Affinity Chromatography
6. Write in detail about fragmentation patterns in Mass spectroscopy.
7. (a) Write about principle and steps involved in HPTLC
(b) Give principle and applications of Vapour phase chromatography.
8. (a) Define Optical rotatory dispersion, circular dichroism.
(b) Explain Bragg's law with a neat diagram?
(c) Add a note on different Exchange resins used in Ion exchange chromatography
