QP CODE: 211329	Reg. No:
Second Semester M.Pharm Degree Examinations July 2019	

Paper I: Advanced Instrumental Analysis (MPA 201T)

M.Pharm (Pharmaceutical Analysis)

(2017 Scheme)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Explain the principle, instrumentation and detectors used in gas chromatography
- 2. Explain capillary electrophoresis
- 3. Differentiate between C 13 NMR and H1 NMR

Short Notes (9x5=45)

- 4. HPLC detectors
- 5. Ion pair chromatography
- 6. NOESY and COSY
- 7. Size exclusion chromatography
- 8. Chemical shift and factors affecting chemical shift
- 9. Role of HPLC in chiral analysis of pharmaceuticals
- 10.LC MS
- 11.FT NMR
- 12. Principle, instrumentation and applications of super critical fluid chromatography
