

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
**(Deemed to be University)**

**B.PHARM. DEGREE EXAMINATION – February 2020**  
**Fourth Year**

**MODERN METHODS OF PHARMACEUTICAL ANALYSIS**

Time : Three hours

Maximum: 70 marks

I. Write essays on any **TWO** questions: **(2 x 15 = 30)**

1. a) Principles of UV spectroscopy.  
b) Factors affecting fluorescence.
2. a) Principle of mass spectroscopy.  
b) Instrumentation of mass spectrometer.
3. a) HPLC instrumentation.  
b) Applications of HPLC.

II. Write short essays on any **SIX** questions: **(6 x 5 = 30)**

4. Detectors in spectroscopy.
5. Paper chromatography.
6. Flame emission spectroscopy.
7. X ray diffraction applications.
8. MALDI TOF.
9. Applications of IR spectroscopy.
10. Theory of Nephelometry.
11. Factors affecting chromatogram.

III. Write short notes on any **FIVE** questions: **(5 x 2 = 10)**

12. Auxochrome.
13. Mass fragmentation.
14. Photodiode.
15. Advantage of UPLC.
16. Disadvantages of Gas chromatography.
17. Sources of Radiation.

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