

VPM's ADVANCED STUDY CENTRE

PGDAAC

Dt.: 27.06.2008

Marks: 100

Re-examination 2007-08

PAPER – I
(SECT. – I)

***Solve any 5 (five) questions.**

- Q.1) Explain basic principle and working of GC with neat diagram. 10
- Q.2) Explain briefly basic principle of HPLC with the help of neat diagram. 10
- Q.3) Explain briefly various modes of vibrations in IT Spectroscopy. 10
- Q.4) ANSWER **ANY TWO** BRIEFLY 10
- a) Explain briefly various components used in IR spectroscopy.
 - b) What is meant by finger print region, what are its uses?
 - c) Define Chromatography, what is meant by GC and HPLC.
- Q.5) Explain applications of IT spectroscopy; How will you do qualitative and quantitative analysis by IT spectroscopy. 10
- Q.6) What is band broadening in Chromatography? How it affects number of theoretical plates? How it can be minimized. 10
- Q.7) Write Notes on **ANY TWO of the following** 10
- a) Detections used in GC.
 - b) Detections used in HPLC.
 - c) Advantages of HPLC over GC.
 - d) Applications of GC.
 - e) Sampling techniques in IT spectroscopy.