

Hemchandracharya North Gujarat University, Patan.
Bachelor of Vocation: Pharmaceutical chemistry- Semester IV
End Term Examination, May 2017
Advanced Analytical Chemistry-II: (PC-413)

Time: 2 hrs

Date: 03/05/2017

Maximum marks: 50

Q.1 Answer all questions. Each question carries 1 mark. (9*1 = 9 marks)

- 1 In a Reverse phase HPLC there is a ...
 - (a) Polar solvent/Non polar column
 - (b) Non polar solvent/Non polar column
 - (c) Non polar solvent/polar column
 - (d) All of the above
- 2 Write names of detectors used in HPLC?
- 3 Give one example of polar and non polar solvent each?
- 4 Write the full form of HPTLC _____
- 5 Define chromatography.
- 6 Define robustness.
- 7 In gradient system, the composition of mobile phase remains constant. (True/False)
- 8 Which materials could be used as a solid support in HPTLC?
- 9 Which gases are used in GC?

Q.2 Answer any 5 questions. Each question carries 4 marks. (5*4 = 20 marks)

- 1 Define (a) Theoretical plates (b) Resolution (c) Polarity (d) Stationary phase.
- 2 Explain normal phase and reverse phase chromatography.
- 3 Explain chromatogram with retention time, peak height, tailing and fronting.
- 4 Explain the two methods used in HPTLC: densitometry and thermal methods.
- 5 Describe the column of GC.
- 6 Write different applications of HPLC?

Q.3 Answer any 3 question. Each question carries 7 marks. (3*7 = 21 marks)

- 1 Explain validation parameters.
- 2 Write a short note on application and recent advancement in HPTLC system.
- 3 Discuss in detail about detectors used in HPLC.
- 4 Describe the instrumentation of GC.