Hemchandracharya North Gujarat University, Patan
Bachelor of Vocation
'Pharmaceutical Chemistry' Semester - VI
End Term Examination, April-2018.
Advanced Analytical Chemistry-IV (PC 613)

Time: 2hrs **Date: 26/04/2018** **Max. Marks: 50**

Q.1 Answer any 9 questions. Each question carries 1 mark (9*1=9 Marks)

1. Which of the following is the most required for the NMR active?
   (a) I > 0 (b) I< 0 (c) I= 0 (d) none of these
2. Define: Resolution.
3. .....in NMR give the information about the number of protons of each kind.
4. Spin multiplicity follows the pattern found in Pascal's triangle ? True or False.
5. How much energy is applied in Mass Spectroscopy?
   (a) 40 ev (b) 60 ev (c) 70 ev (d) 80 ev
6. Define: Base peak.
7. The molecular Ion peak gives the.....of the compound.
8. What is Digestion?
9. The analyte is selectively converted into a insoluble form. True or False
10. The Particle size is related to.....

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

1. Write a note on Chemical Shift.
2. Explain Shielding and Deshielding effect of protons in NMR.
3. Describe following terms: (i) Meta Stable Peak (ii) Base Peak (iii) M+ ion peak.
4. What is Spectroscopy? Explain the Principle of Mass Spectroscopy.
5. Discuss about the Filtration, Filter paper and Crucibles of Gravimetric Analysis.
6. Explain equivalent and non-equivalent protons.

Q.3 Answer any 3 questions. Each question carries 7 mark (3*7=21 Marks)

1. Describe the instrumentation of NMR/CMR.
2. Explain Fast Atom Bombardment (FAB) in mass spectroscopy.
3. What is Colloidal State? Explain Colloidal precipitation.
4. Write a note on Organic Precipitants.

Best Of Luck