Hemchandracharya North Gujarat University, Patan
Bachelor of Vocation
'Pharmaceutical Chemistry' Semester - VI
End Term Examination, April-2019.
Advanced Analytical Chemistry-IV (PC 613)

Time: 2hrs **Date: 27/04/2019** **Max. Marks: 50**

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

1.Which of the following is not a type of NMR?

(a) H^1 (b) C^{13} (c) F^{19} (d) none of these

2. Define: Equivalent proton.

3. ..... is used to identify the type of protons. (H^1/ C^{13})

4. Mass Spectroscopy is based on e/m ration of components. 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. Define: Flocculation.

8. What is colloid?

9. The particle size in colloids is larger than true solution. True or False

10. The Particle size of colloidsis.....

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

1. Write a note on Chemical Shift.

2. Write a note on mass analyzer.

3. Describe following terms: (i) K_{sp} (ii) Coprecipitation

4. Explain the Principle of NMR Spectroscopy.

5. Discuss about the properties of Colloids.

6. Explain Shielding and Deshielding effect of protons in NMR.

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

1. Describe the application of NMR/CMR.

2. Explain instrumentation in mass spectroscopy.

3. What is Colloidal State? Explain Colloidal precipitation.

4. Write a note on filtration.

Best Of Luck