

Pramukh Swami Science & H. D. Patel Arts College, Kadi
Bachelor of Vocation

Pharmaceutical Chemistry Semester VI

Mid Sem Examination, March 2017

PC 613 – Advanced Analytical Chemistry - IV

Time: 2 hrs

Date: 28/03/2017

Marks: 60

Q.1 Answer any 12 questions. Each question carries 1 mark

[12*1=12]

1. Co precipitation takes place by which ways?
2. Define digestion?
3. Write Von Weimarn equation?
4. There are ____ (one/ two) types of organic precipitants?
5. Precipitation _____ (increases / decreases) with time.
6. Give example of one organic precipitant?
7. The NMR spectrum of ethane shows:
(a) Six signals (b) Two signals (c) One signal (d) None of these
8. Most organic molecules have chemical shift value between ____ to ____.
9. With 4 neighboring protons, the peak would split into ____ peaks with intensity ____.
10. Name two different solvents used in NMR?
11. Which of the following is NMR active?
(a) ^{12}C (b) ^{32}S (c) ^{19}F (d) ^4He
12. Define PMR?

Q.2 Answer any 5 questions. Each question carries 04 marks

[5*4=20]

1. Explain with example surface adsorption?
2. Discuss about post precipitation?
3. Describe filtration process in precipitation?
4. Write down different conditions for precipitation?
5. Explain Larmor precession?
6. Predict number of NMR signals in the following compounds:
(a) Propanol
(b) $(\text{CH}_3)_4\text{Si}$

Q.3 Answer any 4 questions. Each question carries 07 marks

[4*7=28]

1. Describe in detail about organic precipitants?
2. Explain washing of precipitate?
3. Discuss about spin spin splitting?
4. Explain the principle of NMR?
5. Write a short note on chemical shift?