

**Pramukh Swami Science & H.D. Patel Arts College, Kadi**

**Bachelor of Vocation Pharmaceutical Chemistry Semester- III**

**Mid Sem Examination, November-2016,**

**(PC-312) Advanced Analytical Chemistry-I**

**Time: 2 hours**

**9/11/2016**

**Total Marks: 60**

**Que-1. Answer any 12 questions. Each question carries 1 mark [12]**

1. Full name of SPME?
2. Unit of pH \_\_\_\_\_  
(a) joule/mole (b) cm/inch (c) kg/lit (d) unit less
3. Define: -Specific conductance.
4. Match the following  

pH	Glass electrode
	copper electrode
	gold electrode
5. Extraction techniques can be used for characterization (True/False).
6. Karl Fisher used \_\_\_\_\_ unit to measure moisture.
7. 1 ltr = \_\_\_\_\_ ml.
8. Define :- Chromatography.
9. Other than silica which material can be used as a stationary phase?  
(a) Alumina (b) Zinc (c) Iron (d) All of these
10. Potential is symbolized by \_\_\_\_\_  
(a) M (b) d (c) E (d) N
11. Define: - EMF.
12. Column chromatography used gravitational force for the separation process (True/False) with reason.
13. Blue litmus paper turns to red by base (True/False).

**Que.2. Answer any five questions. Each question carries 4marks [20]**

1. Discuss glass electrode & its advantages, disadvantages in detail.
2. What are the different factors affecting thin layer chromatography?
3. Explain column efficiency, resolution and retention time.
4. Classify different extraction techniques.
5. Define chromatography. Classify chromatographic methods on the basis of mobile phase and stationary phases.

6. Define pH. Discuss different measurement techniques of pH.

7. Explain instrumentation of conductometer.

**Que.3 Answer any 4 questions. Each question carries 7 marks [28]**

1. Explain soxhlet extraction in detail.
2. Discuss in detail Karl Fischer Titration.
3. Explain Kjeldahl's method.
4. What is chromatography? Explain paper chromatography in detail.
5. Derive equation of conductometry with cell constant.