

Seat No.:-----

Enrolment No.:-----

**UKA TARSADIA UNIVERSITY**

Maliba Pharmacy College

B. Pharm 3<sup>rd</sup> Semester Internal Examination 2013 (*Mid-Sem 1*)

**030020304- Pharmaceutical Analysis 1**

Time: 1:30 p.m. To 3:30 p.m.

Max. Marks: **40**

Date: 03/09/2013

**Instructions:**

- Attempt any **FIVE** questions.
- Each question carries **08** marks.
- Make suitable assumption whenever necessary.
- Figures to the right indicate full marks.

- Q.1 A) Explain different concepts of acid base with suitable examples 04  
B) What is the pH of following solutions 04  
1. 0.0154 N Hydrochloric acid  
2. 0.01 M Acetic acid ( $K_a$  value of  $\text{CH}_3\text{COOH} = 1.8 \times 10^{-5}$ )
- Q.2 A) Define following terms 04  
1. Molarity                      3. Dissociation constant  
2. Weak acid                      4. Equivalent point  
B) 50.0 ml of 0.1 M HCl is titrated with 0.1 M NaOH calculate the pH after addition of 10 04  
and 60 ml of titrant.
- Q.3 A) Define buffer and describe applications of buffer. 04  
B) What is the pH of a buffer prepared by adding 10 ml of 0.1M acetic acid to 20 ml of 04  
0.1 M of Sodium acetate.
- Q.4 A) Calculate the pH of 0.1 M solution of sodium acetate. 04  
B) Calculate the pH of 0.25 M of ammonium chloride. ( $K_b$  value of  $\text{NH}_3 = 1.78 \times 10^{-5}$ ) 04
- Q.5 A) Define the following terms 04  
1. Quality Assurance              3. Accuracy  
2. Quality control                  4. Precision  
B) Classify different types of error in Analysis. 04
- Q.6 A) Write a note on - Importance of Analytical chemistry 04  
B) Write in detail- how to reduce systemic error? 04
- Q.7 A) Explain with example – testing the reliability of results using Q test. 04  
B) Normality of a solution was determined by four separate titrations, results being 04  
0.2041, 0.2049, 0.2039 and 0.2043 Calculate Mean, Average deviation, Standard deviation and coefficient of variance.