

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4PA02PHA1

Subject Name: Pharmaceutical Analysis-I

Course Name: B.Pharm

Date: 22/5/2015

Semester: II

Marks: 70

Time: 10:30 TO 01:30

Instructions:

- 1) Attempt all Questions in same answer book/Supplementary.
- 2) Use of Programmable calculator & any other electronic instrument prohibited.
- 3) Instructions written on main answer book are strictly to be obeyed.
- 4) Draw neat diagrams & figures (if necessary) at right places.
- 5) Assume suitable & perfect data if needed.

- Q-1 Answer the following:
- | | |
|---|---|
| a) Define Accuracy & Precision. | 2 |
| b) Define Molarity & Normality. | 2 |
| c) Define Ligand & Chelate. | 2 |
| d) Mention some examples of mixed indicator in acid-base titration. | 1 |
| e) What is the pH of 0.001 M NaOH solution? Derive it. | 2 |
| f) Define Primary & Secondary Standard. | 2 |
| g) What is solubility Product? | 1 |
| h) Mention von Weimar equation. | 2 |

Attempt any four from Q-2 to Q-8.

- Q-2 Give answer of following.
- | | |
|---|---|
| a) Classify error. Describe the methods of error minimization. | 5 |
| b) Describe the theories of Acid-Base concept. | 5 |
| c) Describe Law of mass action and factors affecting the equilibrium. | 4 |
- Q-3 Give answer of following.
- | | |
|---|---|
| a) What is buffer? Describe the Henderson-Hasselblach equation. | 5 |
| b) What is meant by pM indicators. Describe with example. | 5 |
| c) What is law of ionic product of water? Derive it. Describe the pH scale. | 4 |
- Q-4 Give answer of following.
- | | |
|---|---|
| a) Describe the theory of acid-base Indicator and choice of indicators. | 7 |
| b) Describe the neutralisation curve for weak acid and strong base. | 7 |
- Q-5 Give answer of following.
- | | |
|---|---|
| a) Differentiate Iodimetry and Iodometry with example of reaction. | 5 |
| b) What is a precipitation titration? Mention the factors affecting solubility of precipitates. | 5 |



- c) Differentiate levelling and differentiating solution. 4
- Q-6 Give answer of following.
- a) Describe Mohr's method. 5
 - b) Describe Fajan's method. 5
 - c) Classify the solvents used in non-aqueous titration with example. 4
- Q-7 Give answer of following.
- a) Differentiate masking and demasking agents. 5
 - b) Write about different solvents and indicators used in non aqueous titration. 5
 - c) Write the factors affecting surface adsorption. 4
- Q-8 Give answer of following.
- a) What is co-precipitation? Discuss the types of co-precipitation. 7
Differentiate co-precipitation and post- precipitation.
 - b) Describe the steps involved in gravimetric analysis. 7

