Enrollment No:-_____ Exam Seat No:-_____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 5AH02PCS1 **Subject Name: Preservations and Conservations of Information Sources**

Course Name: MLISc 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-Hessselblach 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

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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. Differentiate co-precipitation and post- precipitation. 7

b) Describe the steps involved in gravimetric analysis. 7