

RAMANANDA COLLEGE, BISHNUPUR, BANKURA

4th SEMESTER (HONOURS) PRACTICAL EXAMINATIONS, 2021

Subject: CHEMISTRY

Course ID: 41412

Course Title: Inorganic Chemistry III

Full Marks: 15

Time: 2 Hour

The figures in the margin indicate full marks

Candidates are required to give their answers in their own words as far as practicable.

Answer *any one* of the following questions:

1. a. Explain with its classification Complexometric titration 4
 - b. Explain with example the advantage of masking agent used in complexometric titration. 3
 - c. Write down the structure of H₄EDTA (ethylenediaminetetraacetic acid) and its cobalt(II) complex. 3
 - d. Describe the principle and the procedure for the estimation of total hardness of water. 5
1. a. what are the chemicals required for the preparation of Potassium tris(oxalate)ferrate(III) complex? Describe the procedure for the preparation of the complex. Note down the chemical reactions involved in the preparation. 1+2+2
 - b. Draw the structure of Erichrome Black T (EBT) indicator. Explain its color changes at different pH with and without metal ion. 2+3
 - c. Describe the procedure for the preparation of tri(ethylenediamine)nickel(II) chloride complex. Draw the structure of the complex. 3+2