

U.G. 4th Semester Examination - 2021**CHEMISTRY****[HONOURS]****Course Code : CHEM-H-CC-P-9****[PRACTICAL]**

Full Marks : 20

Time : 2 Hours

*The figures in the right-hand margin indicate marks.*Answer any **two** questions:

10×2=20

1. Write down the method of preparation of (i) Mohr's salt and (ii) Potassium bis(oxalato)cuprate(II) dehydrate in laboratory. 5+5
2. What are the advantages of EDTA in complexometric titration? What do you mean by metal-ion indicator? What are the criteria of a good metal-ion indicator? Draw the structure of EBT and murexide. 3+2+3+2
3. Can EDTA be used as a primary standard? Why is EBT/ KNO₃ mixture used as indicator in EDTA titration? Describe the principle of estimation of Ca(II) and Mg(II) in a mixture. 2+3+5

4. What do you mean by permanent hardness? Why is pH of the solution kept constant or within a certain limit during titrations with EDTA? Draw the structure of C_a-EDTA complex. How will you standardize EDTA solution? 2+3+2+3

[Turn over]