U.G. 3rd Semester Examination - 2021

CHEMISTRY

[HONOURS]

Course Code : CHEM-H-CC-P-06

[PRACTICAL]

Full Marks : 20 Time : 2 Hours

The figures in the right-hand margin indicate marks.
Candidates are required to give their answers in their own words as far as practicable.

Answer any **two** questions: 10×2=20

1. Explain the principle of estimation of Fe(III) and Cr(VI) in a mixture. What is Z-R solution? Explain the role of each component of Z-R solution in redox titration. 5+2+3=10

2. Sodium thiosulphate is a secondary standard solution-Explain. What do you mean by iodimetry and iodometry? Draw the structure of two redox indicators. How will you determine the strength of one base by another base? 2+3+2+3=10

3. Write down the reactions involved in titrimetric analysis of Cu(II) and Fe(III) in a mixture. Explain the role of $SnCl_2$ and $HgCl_2$ in redox titration of Fe(III). How will you estimate Mn(II) in presence of Fe(III)? 3+3+4=10

4. How will you prepare 250 ml 0.1(N) $K_2Cr_2O_7$ solution? Calculate the equivalent weight of $KMnO_4$. Standardization of $KMnO_4$ with oxalic acid requires 70-80^{0}C temperature-Explain the reason. What do you mean by self-indicator? Explain the role of NH_4HF_2 in estimation of Fe(III). 2+2+2+2+2=10

———————