

UG 4th Semester Examination 2022

CHEMISTRY [HONOURS]

Course Code: HCCT-8 (Theory)

Full Marks: 10

Answer any four questions

[4X2.5]

1. According to the Debye-Huckel limiting law, the mean activity coefficient of 5×10^{-4} mol kg⁻¹ aqueous solution of CaCl₂ at 25 °C is (the Debye-Huckel constant “A” can be taken to be 0.509)
2. What do you mean by concentration cell without transference? Write its EMF in case of H₂ electrode.
3. Write Clausius-Mosotti equation? Write meaning of each term in the equation (do not explain).
4. Write any two corrections in Debye-Huckel limiting law.
5. For a 1 molal aqueous NaCl solution, give the relation between mean ionic activity co-efficient and Debye-Huckel limiting law constant.