



CHM 324 exam Questions 2019

Q1. a) Define the term "Titrimetric analysis". (02 marks)

b) Outline the quality of specific requirements a primary standard substance must meet. (03 marks)

c) For the titration of 25.00cm^3 of $0.050\ 00\ \text{mol dm}^{-3}$ NaOH with $0.250\ 00\ \text{mol dm}^{-3}$ HCl, calculate the pH when the titre value is (i) $0.30V_e$ (ii) $1.10V_e$

(10
marks)

Q2. a) What is the;

i) mass of CsOH required to prepare 250cm^3 of $0.020\ 00\ \text{mol dm}^{-3}$ CsOH solution? (03 marks) [Cs = 132.9; O = 16.0; H = 1.0]

ii) pH of $0.020\ 00\ \text{mol dm}^{-3}$ CsOH solution? (03 marks)

b) Derive an expression for acid dissociation constant. (03 marks)

c) Briefly describe the four groups of titrimetric methods based on the type of reactions involved. (06 marks)