Worksheet: Equilibrium

Maharashtra State Board · Class 11 · Chemistry · 5 questions · 16 marks

Name: _____ Date: _____ Score: _____ / 16

Q1. Find the pH of a 0.1 M CH3COOH solution (Ka = 1.8e-5). *[3 marks]*

Q2. Find the pH of a buffer of 0.1 M CH3COOH and 0.2 M CH3COONa (pKa = 4.74). *[3 marks]*

Q3. Predict the effect of increasing temperature on N2 + 3H2 <=> 2NH3 (delta-H = -92.4 kJ). *[2 marks]*

Q4. For H2 + I2 <=> 2HI, Kc = 54.8 at 425 C. If 0.5 M H2 and 0.5 M I2 are mixed, find [HI] at equilibrium. *[5 marks]*

Q5. Ksp of BaSO4 is 1.5e-9. Will a precipitate form when 0.01 M BaCl2 and 0.01 M Na2SO4 are mixed? *[3 marks]*