

XI Chemistry Worksheet

Time: 30 min

Ch # 7 : Equilibrium -03

Full Marks: 20

Instructions:

1. All questions are compulsory.
2. Please give the explanation for the answer where applicable.

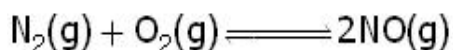
Q1 -Define Lewis Acids and Bases.

(1 Mark)

Q2 -What is a Common Ion Effect?

(2 Marks)

Q3 - At equilibrium, the concentrations of $N_2=0.0032$ M, $O_2= 0.0043$ M and $NO =0.0026$ M in a sealed vessel at 800K. What will be K_c for the reaction?



(2 Marks)

Q4 -12.8 gm of N_2O_4 was placed in a 1L reaction vessel at 400 K and allowed to attain equilibrium



The total pressure at equilibrium was found to be 8.29 bar calculate K_p , K_c and partial pressure at equilibrium?

(5 Marks)

Q5 -Hydrolysis of sucrose gives,



Equilibrium constant, K_c for the reaction is 3×10^{11} at 300 K. Calculate ΔG at 300 K

(2 Marks)

Q6 -Write conjugate acid of NH_3 .

(1 Mark)

Q7 -Write conjugate acid of $HCOO^-$.

(1 Mark)

Q8 -Write conjugate base of $HClO_4$.

(1 Mark)

Q9 - The ionization constant of HF is 3.4×10^{-4} . Calculate the degree of dissociation of HF in its 0.02 M solution?

(3 Marks)

Q10 - Calculate the solubility of AX in pure water. The solubility product of AX is 2.5×10^{-20} .

(2 Marks)