

CHEMISTRY-11	Chapter#08 (Complete-Smart Syllabus) Test-2B		
	Name:	Class:	ID:
Date: / /	Marks Total: 25	Marks Obtained:	
Time Allowed: 40 Min.			

Maximum Marks: 09

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- The pH of 10^{-3} mole dm^{-3} of an aqueous solution of H_2SO_4 is:
 - 3.0
 - 2.7
 - 2.0
 - 1.5
- The unit of K_c for the reaction $\text{N}_2(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons 2\text{NO}(\text{g})$:
 - Moles/ dm^{-3}
 - Moles $^{-1}$ / dm^{-3}
 - Moles $^{-2}$ / dm^6
 - No unit
- The optimum pressure for Haber's process is:
 - 100-150 atm
 - 200-300 atm
 - 350-450 atm
 - 500-600 atm
- The pH of human blood is maintained at:
 - 7.30
 - 7.35
 - 7.00
 - 8.00
- Law of mass action was presented by:
 - C.H. Hess
 - C.M. Guldberg
 - P. Waage
 - Both 'b' & 'c'
- The relationship between K_p and K_c is:
 - $K_c = K_p (\text{RT})^{\Delta n}$
 - $K_c = \frac{K_p}{(\text{RT})^{\Delta n}}$
 - $K_c = \frac{(\text{RT})^{\Delta n}}{K_p}$
 - $K_c = \frac{(\text{RT})}{(K_p)^{\Delta n}}$
- The solubility of Li_2CO_3 _____ by increase of temperature.
 - Increases
 - Decreases
 - Remains same
 - None
- Which compound is regarded as the king of chemicals?
 - NH_3
 - H_2O
 - H_2SO_4
 - HCl
- The pH of a basic buffer is directly proportional to:
 - The concentration of the salt
 - The concentration of the base
 - Both 'a' & 'b'
 - None

Maximum Marks: 16

(SUBJECTIVE TYPE)

Time Allowed: 30 Min.

SECTION-I

Q.2: Give brief answers to the following questions:

(12)

- Justify that chemical equilibrium is not static but dynamic in nature.
- State law of mass action.
- How does K_c predict about the extent of chemical reaction?
- Calculate the pH of 10^{-3} mole dm^{-3} HCl .
- What is Ostwald's dilution law?
- Write Henderson equation for acids and bases.

SECTION-II

NOTE: Attempt All Questions:

(04)

Q.3: $\text{N}_2(\text{g})$ and $\text{H}_2(\text{g})$ combine to give $\text{NH}_3(\text{g})$. The value of K_c in this reaction at 500°C is 6.0×10^2 . Calculate the value of K_p for this reaction.