

CHEMISTRY-11	Chapter#08First Half (8.1-8.2) Test-1A		
	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 law of mass action was given by:
 - D.C. Down and P. Waage
 - C.M. Gulberg and P. Waage
 - Gay-Lussic and C.M. Gulberg
 - Henderson and Le-Chatelier
- K_c value for the decomposition of HF at 2000°C is:
 - 10^{-13}
 - 10^{55}
 - 10^{-20}
 - 10^{-16}
- For which reaction, K_c has no units?
 - $\text{PCl}_3 \rightleftharpoons \text{PCl}_3 + \text{Cl}_2$
 - $\text{N}_2\text{O}_4 \rightleftharpoons 2\text{NO}_2$
 - $\text{N}_2 + 3\text{H}_2 \rightleftharpoons 2\text{NH}_3$
 - $\text{N}_2 + \text{O}_2 \rightleftharpoons 2\text{NO}$
- For the gaseous equilibrium, $\text{N}_{2(g)} + 3\text{H}_{2(g)} \rightleftharpoons 2\text{NH}_{3(g)}$, which is the correct relation?
 - $K_p > K_c$
 - $K_p = K_c$
 - $K_p < K_c$
 - $K_p = \frac{1}{K_c}$
- Pressure change will affect:
 - Solid equilibria
 - Liquid equilibria
 - Gaseous equilibria
 - Both 'b' & 'c'
- The solubility of which salt will not be affected by temperature?
 - NaCl
 - Li_2CO_3
 - LiCl
 - KI
- A change in _____ changes K_c as well as the position of equilibrium.
 - Concentration
 - Pressure
 - Temperature
 - Both 'a' & 'b'
- At 200-300 atm pressure and 400°C temperature, the efficiency of Haber's process is:
 - 100%
 - 55%
 - 75%
 - 35%
- Which compound is regarded as the king of chemicals?
 - NH_3
 - H_2O
 - H_2SO_4
 - HCl

Maximum Marks: 16

(SUBJECTIVE TYPE)

Time Allowed: 30 Min.

SECTION-I

Q.2: Give brief answers to the following questions: (12)

- What is meant by chemical equilibrium?
- State law of mass action.
- How does K_c predict about the direction of the chemical reaction?
- What is the effect of rise in temperature on the solubility of KI?
- What are the optimum or best industrial conditions for the synthesis of NH_3 in Haber's process?
- What is the effect of change in pressure on: $2\text{SO}_2 + \text{O}_2 \rightleftharpoons 2\text{SO}_3$?

SECTION-II

NOTE: Attempt All Questions:

(04)

Q.3: Define Le-Chatelier's principle. Discuss the effect of change in concentration on an equilibrium system.