

CHEMISTRY-11	Chapter#08(Complete) Test-3A		
	Name:	Class:	ID:
Date: / /	Marks Total: 30	Marks Obtained:	
Time Allowed: 60 Min.			

Maximum Marks: 06

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

1. Which statement about the following equilibrium is correct?



- (a) The value of K_p falls with rise in temperature.
- (b) The value of K_p falls with increasing pressure.
- (c) Adding V_2O_5 catalyst increases the equilibrium yield of SO_3 .
- (d) The value of K_p is equal to K_c .

2. The law of mass action was given by:

- (a) D.C. Down and P. Waage
- (b) C.M. Gulberg and P. Waage
- (c) Gay-Lussic and C.M. Gulberg
- (d) Henderson and Le-Chatelier

3. Ionic product of water (K_w) increases _____ when temperature increases from 0°C to 100°C :

- (a) 22 times
- (b) 75 times
- (c) 55 times
- (d) 65 times

4. Sum of $\text{p}K_a$ and $\text{p}K_b$ is equal to:

- (a) 14
- (b) 7
- (c) 0
- (d) 1

5. When HCl is added to aqueous solution of H_2S , its ionization:

- (a) Increases
- (b) Remains constant
- (c) Decreases
- (d) First increases then decreases

6. If K_{sp} is greater than ionic product of salt, the result is:

- (a) Un-saturation
- (b) Saturation
- (c) Precipitation
- (d) None

Maximum Marks: 24

(SUBJECTIVE TYPE)

Time Allowed: 50 Min.

SECTION-I

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

(16)

- i. What is meant by chemical equilibrium?
- ii. Differentiate between K_c and K_p ? OR What is the relation between K_c and K_p ?
- iii. Why does ice melt, when it is pressed or pressure is increased on it?
- iv. What is ionic product of water? How does K_w vary with the change in temperature?
- v. Define acid and base according to Lowry Bronsted concept.
- vi. How can NaCl be purified through common ion effect?
- vii. Differentiate between acidic and basic buffers.
- viii. Calculate solubility product expression for Ag_2CrO_4 .

SECTION-II

NOTE: Attempt All Questions:

(08)

Q.3: Write a note on synthesis of ammonia gas by Haber's process keeping in mind the applications of chemical equilibrium in industry.

Q.4: Write a note on buffer capacity.