or

Practice Test ABS

Name: _____

All Questions 4 Marks Each

1. Identify the following as acids (A), bases (B), salts (S) or other and give an explanation for each decision.

Chemical	Identity	Reason
$Mg(OH)_2$		
HNO_3		
CH_3CH_2OH		
$BaCl_2$		

2. In the lab, you are asked to neutralize a solution with a pH of 5.

The lab tech gives you vinegar, a potassium hydroxide solution and different indicators.

These indicators and their turning points are listed in the table below:

Indicator	Turning Point
Methyl Orange	**3.1-4.4**
Bromocresol Green	**3.8-5.4**
Bromothymol Blue	**6.0-7.6**
Phenolphthalein	**8.2-10.0**

i) Which solution would you use and why?

ii) Which indicator would you use and why?

i) _____ because _____

ii) _____ because _____

or

3. The following table gives the colours of an acid-base indicator after it is added to solutions with different pH values.

pH	2	3	4	5	6	7	8	9	10	11	12
Indicator	**Yellow**			**Orange**			**Red**		**Violet**		

A few drops of this indicator are added to a weakly basic solution.

What colour will the solution turn?

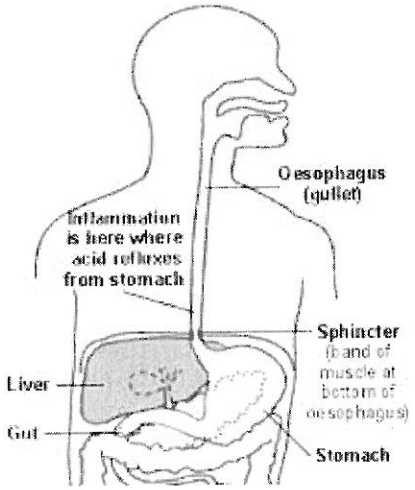
A) It will turn yellow.

B) It will turn orange.

C) It will turn Red.

4. Gastro-esophageal reflux disease, or GERD, is caused when stomach acid, having a pH of 4 (or less) rises in the esophagus.

What concentration of hydroxide ion is present in the stomach acid whose pH is 4?



Answer: _____

or

5. During an experiment, Soren Sorenson changed a solution from a pH of 1 to a pH of 3.

What happened to the concentration of hydrogen ions $[H^+]$ and $[OH^-]$ respectively?

A) The $[H^+]$ decreased 100 times and the $[OH^-]$ increased 100 times.

B) The $[H^+]$ increased 100 times and the $[OH^-]$ decreased 100 times.

C) The $[H^+]$ decreased by 2 and the $[OH^-]$ increased by 2.

D) The $[H^+]$ increased by 2 and the $[OH^-]$ decreased by 2.

6. In the lab, Ms. Purcell mixes 3.65 g of HCl in 1.0 L of ~~water~~ sol'n.

What is the pH of the solution?

Answer: _____

7. What is the concentration of NaOH if 12.00 mL of a 0.25 mol/L HCl are required to neutralize 10.00 mL of NaOH?

Answer: _____

or

8. Show how the following electrolytes dissociate in water.

1) $Al_2(CO_3)_3$ _____

2) H_3PO_4 _____

9. You have an acidic solution in a beaker but no litmus paper.

What 2 other tests could you do to identify this solution as acidic and what results would you obtain?

i) test _____ result _____

ii) test _____ result _____