

EXERCISE 8

Chem 100
(Due in lab _____)
10 points

Name _____
(last) (first)

Lab Section # _____ Lab Instructor _____

A. For each of the following aqueous solutions, write the theoretical pH in the blank.

1. 0.01 M HBr 2

4. 0.00001 M HClO₄ 5

2. 0.001 M HNO₃ 3

5. 0.0001 M NaOH 10

3. 0.1 M LiOH 13

6. 0.001 M KCl 7

B. Which of the following pairs could form a buffer system. Write "yes" or "no" in the blank at the right.

1. HNO₂ and NaNO₂ 1. yes

2. KOH and KI 2. no

3. HCl and NaCl 3. no

4. NH₃ (NH₄OH) and NH₄Cl 4. yes

5. HF and NaF 5. yes

6. HC₂H₃O₂ and HNO₃ 6. no

C. Electrolytes. Write the correct letter in the blank to the right of the compound.

(A) strong electrolyte (B) weak electrolyte (C) nonelectrolyte

1. Ba(OH)₂ A 8. CaSO₄ C

2. ZnO C 9. HF B

3. C₆H₁₂ C 10. LiOH A

4. HNO₃ A 11. C₆H₁₂O₆ C

5. NH₃ B 12. Sr(OH)₂ A

6. HCl A 13. HClO₃ B

7. (NH₄)₂S A 14. Co(NO₃)₂ A