ASSESSMENT

COURSE CODE: **AIWS3ICWO**
Intermediate Certificate of Water Operations

UNIT CODE: **AIWS3STWW**
Sample and Test Waste Water

Subject: **pH**

Faculty: **Science**

Department: **Water Industry Services**

Student ID: _____

Student Name: _____

Student Signature: _____

Assessment Date: _____

Assessor: _____

Grade: _____ **(HD, D, C, P, N, NA)**

Part A pH Answer all questions

1. Complete the following Table **22 Marks**

pH	[H_3O^{1+}]	pOH	[OH^{1-}]	ACID or BASE?
3.78				
	3.89×10^{-4} M			
		5.19		
			4.88×10^{-6} M	
8.46				
	8.45×10^{-13} M			
		2.14		
			2.31×10^{-11} M	
10.91				
	7.49×10^{-6} M			
		9.94		

Part B: For each of the problems below, assume 100% dissociation.

2. A. Write the equation for the dissociation of hydrochloric acid.

B. Find the pH of a 0.00476 M hydrochloric acid solution.

2. **A.** **Write the equation for the dissociation of sulfuric acid.**

B. **Find the pH of a solution that contains 3.25 g of H_2SO_4 dissolved in 2.75 liters of solution.**

3. **A.** **Write the equation for the dissociation of sodium hydroxide.**

B. **Find the pH of a 0.000841 M solution of sodium hydroxide.**

Part C Short Answer Questions

4. Describe the process of calibrating the pH probe

5. Describe the process of conducting a pH test

6. Why is it necessary to measure pH in potable water and waste water

END OF ASSESSMENT