

Observation Sheet: Buffer Solutions**From your Prelab:**

Assigned final target buffer pH: _____

Assigned final target total buffer concentration: _____

Calculated mass of sodium acetate trihydrate
to weigh out (Prelab Question 3): _____Calculated volume of 0.500 M hydrochloric
acid to dispense (Prelab Question 5): _____**Assessment****Experiments O & P****Report** _____/8**Quiz** _____/10**Prelab (Online)** _____/2**Total** _____/20**Part I: Buffer preparation**

Mass of sodium acetate trihydrate: _____

Volume of 0.500 M HCl(aq) dispensed: _____

Part II: Effect of the addition of a strong acid to deionized waterpH of deionized water: **6.37**pH of deionized water after the
addition of 2 drops of 0.10 mol/L HCl: **3.28****Student:** (name) _____

(signature) _____

Instructor: (signature) _____**Bench #** _____**Laboratory Section:** _____

Parts III and IV: Effect of addition of strong acid and strong base to buffer solutions $[\text{HCl}] = 0.100 \text{ mol/L}$ $[\text{NaOH}] = 0.100 \text{ mol/L}$

		Part III: Prepared buffer	Part IV: Diluted buffer
Addition of HCl first pH change second pH change	initial pH	4.57	4.56
	final burette reading	29.19 mL	19.47 mL
	initial burette reading	19.06 mL	17.35 mL
	volume added (mL)		
	final pH (first unit change)	3.60	3.53
	final burette reading	32.85 mL	20.47 mL
	initial burette reading	29.19 mL	19.47 mL
	volume added (mL)		
	final pH (second unit change)	2.63	2.56
Addition of NaOH First pH change second pH change	initial pH	4.55	4.58
	final burette reading	21.80 mL	16.61 mL
	initial burette reading	11.43 mL	14.65 mL
	volume added (mL)		
	final pH (first unit change)	5.55	5.55
	final burette reading	25.44 mL	17.31 mL
	initial burette reading	21.80 mL	16.61 mL
	volume added (mL)		
	final pH (second unit change)	6.55	6.58

Student: (name) _____

(signature) _____

Instructor: (signature) _____**Bench #** _____**Laboratory Section:** _____