Faculty Submitting: _Grinias_____

Specify here whether "Pre" or "End" of Unit and the Unit #: ____End Unit 14_____

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Unit 14_	Canvas Question Type:
Question	
1	Formula Question
	Question Text What is $[H_3O^+]$ (in mM) in a solution of $[a] M CH_3CO_2H$ and
	[b] M NaCH ₃ CO ₂ ?
	$(H_2(\Omega_2 H_2 \Omega_1) \rightarrow H_2 \Omega_1 (2\alpha) + (H_2(\Omega_2 (2\alpha))) = K_2 - 1.8 \times 10^{-5}$
	$CI13CO2II(aq) + I12O(I) - I13O + (aq) + CI13CO2 - (aq) Ka - 1.0 × 10^{-3}$
	Formula: (0.018*a)/b
	Parameters: Let $[a] = 0.200 - 0.300$ (vary by 0.001) and let $[b] = 0.015 - 0.035$ (vary by
	0.001).
Read	
More	
Unit 14	Canvas Question Type:
Ouestion	Carrier Carrier The
	Formula Question
	Question Taxt What is the pH of a solution of [a] MCH CO H and [b] MNaCH CO 2
	$CH_{3}CO_{2}H(aq) + H_{2}O(1) \rightleftharpoons H_{3}O_{+}(aq) + CH_{3}CO_{2}-(aq)$ $K_{a}=1.8 \times 10^{-5}$
	Formula: -log ₁₀ ((0.000018*a)/b)
	Parameters: Let $[a] = 0.200 - 0.300$ (vary by 0.001) and let $[b] = 0.015 - 0.035$ (vary by
	0.001)
Pood	
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	Conveg Question Type
Omt 14_	Canvas Question Type:
Question	
3	Formula Question
	Question Text What is $[OH^-]$ (in miVI) in a solution of [a] <i>M</i> CH ₃ NH ₂ and
	[b] <i>M</i> CH ₃ NH ₃ CI?
	$CH_{3}NH_{2}(aq) + H_{2}O(1) \rightleftharpoons CH_{3}NH_{3}(aq) + OH_{-}(aq)$ $K_{b} = 4.4 \times 10^{-4}$
	Formula: (0.44*a)/b
	Parameters: Let $[2] = 0.110 = 0.140$ (yany by 0.001) and let $[b] = 0.110 = 0.140$ (yany by
	1 an ancients. Let [a] = 0.110 = 0.140 (vary by 0.001) and let $[b] = 0.110 = 0.140 (vary by 0.001)$
	0.001).
Read	
More	
Unit 14_	Canvas Question Type:
Question	
4	Formula Question
	Question Text What is the pOH of a solution of $[a] MCH_3NH_2$ and $[b] MCH_3NH_3CI$?
	$(H_3NH_2(a_0) + H_2O(1)) \rightarrow (H_3NH_3 + (a_0) + OH_2(a_0))$ $K_b = 4.4 \times 10^{-4}$
	$(\alpha q) = 011510112 (\alpha q) = 0117112 (\alpha q) = 0117112 (\alpha q)$

	Formula: -log ₁₀ (0.00044*a)/b
	Parameters: Let $[a] = 0.110 - 0.140$ (vary by 0.001) and let $[b] = 0.110 - 0.140$ (vary by 0.001).
Read More	
Unit 14_ Question	Canvas Question Type:
5	Formula Question
	Question Text What is the pH of a solution of $[a] M CH_3 NH_2$ and $[b] M CH_3 NH_3 CI$?
	$CH_{3}NH_{2}(aq)+H_{2}O(l) \rightleftharpoons CH_{3}NH_{3}(aq)+OH_{-}(aq) \qquad K_{b}=4.4\times10^{-4}$
	Formula: 14+log ₁₀ (0.00044*a)/b
	Parameters: Let $[a] = 0.110 - 0.140$ (vary by 0.001) and let $[b] = 0.110 - 0.140$ (vary by 0.001).
Read More	
Unit 14_ Question 6	Canvas Question Type: Drop down GROUP, choose 1
6a	Question Text A common buffer involves the use of acetic acid and sodium acetate. Will the concentration of acetate ion go up or down if a small volume of HCl is added to a buffer solution containing acetic acid and sodium acetate?
	Correct Answwer: Down
	Wrong Answers: Up
6b	Question Text A common buffer involves the use of acetic acid and sodium acetate. Will the concentration of acetic acid go up or down if a small volume of HCl is added to a buffer solution containing acetic acid and sodium acetate?
	Correct Answwer: Up
	Wrong Answers: Down
Unit 14_ Question 7 a	Question Text A common buffer involves the use of acetic acid and sodium acetate. Will the concentration of acetate ion go up or down if a small volume of NaOH is added to a buffer solution containing acetic acid and sodium acetate?
	Correct Answwer: Up
	Wrong Answers: Down
7b	Question Text A common buffer involves the use of acetic acid and sodium acetate. Will the concentration of acetic acid go up or down if a small volume of NaOH is added to a buffer solution containing acetic acid and sodium acetate?

	Correct Answwer: Down
	Wrong Answers: Un
Unit 14_	Question Text A common buffer involves the use of ammonia and ammonium nitrate. Will
Question	the concentration of ammonia go up or down if a small amount of HCl is added to a buffer
8 a	solution containing ammonia and ammonium nitrate?
	Correct Answwer: Down
8b	Question Text: A common buffer involves the use of ammonia and ammonium nitrate. Will
	the concentration of ammonium ion go up or down if a small amount of HCl is added to a buffer solution containing ammonia and ammonium nitrate?
	Correct Answwer: Up
Unit 14_	Question Text: A common buffer involves the use of ammonia and ammonium nitrate. Will
Question	the concentration of ammonia go up or down if a small amount of NaOH is added to a
9 a	buffer solution containing ammonia and ammonium nitrate?
06	Correct Answer: Up
90	Question Text: A common buffer involves the use of ammonia and ammonium nitrate. Will the concentration of ammonium ion go up or down if a small amount of NaOH is added to a
	the concentration of annionium for go up of down if a small amount of NaOrris added to a buffer solution containing ammonia and ammonium pitrate?
	Correct Answer: Down
Unit 14	Ouestion Text: A common buffer involves the use of ammonia and ammonium nitrate. Will
Ouestion	the pH go up or down if a small amount of HCl is added to a buffer solution containing
10 a	ammonia and ammonium nitrate?
	Correct Answer: Down
10b	Question Text: A common buffer involves the use of ammonia and ammonium nitrate. Will
	the pH go up or down if a small amount of NaOH is added to a buffer solution containing
	ammonia and ammonium nitrate?
	Correct Answer: Up
Unit 14_	Canvas Question Type: Formula Question
Question	
11	
11a	Question Text what will be the pH of a buffer solution prepared from [a] mol NH_3 , [b] mol NH_4 ,
	$N \Pi_4 N O_3$, and just enough water to give [c] Lot solution: Use ionization constants from Appendices H 8. I to belo solve this problem
	Formula : 9.255+log ₁₀ (a/b)
	Parameters : Let $[a] = 0.15 - 0.30$ (vary by 0.01). let $[b] = 0.15 - 0.30$ (vary by 0.01). and let
	[c] = 0.95 - 1.05 (vary by 0.01).
11b	Question Text What will be the pH of a buffer solution prepared from [a] mol sodium
	acetate, [b] mol acetic acid, and just enough water to give [c] L of solution? Use ionization constants from Appendices H & I to help solve this problem.
	Formula: 4.745+log ₁₀ (a/b)
	Parameters Let $[a] = 0.15 - 0.30$ (varv by 0.01). let $[b] = 0.15 - 0.30$ (varv by 0.01), and let
	[c] = 0.95 - 1.05 (vary by 0.01).

Unit 14_ Question	Question Text: Calculate the pH in a titration of 40 mL (0.040 L) of 0.100 <i>M</i> barbituric acid ($K_a = 9.8 \times 10^{-5}$) with 0.100 <i>M</i> KOH after [a] mL of 0.100 <i>M</i> KOH have been
12	added.
	Formula : 4.01+ log ₁₀ ((40-a)/a)
	Parameters Let $[a] = 10.0 - 35.0$ (vary by 0.1)
Read	
more	