Quiz 10.2 – Buffers and Titrations

Name: _____

Question 1

You need to prepare a buffer with $pH = 10.45$. Use table 10.2 from your book to determine the best acid/base conjugate pair for this buffer.

Question 2

A buffer is made using the formic acid/formate ion conjugate pair. Find the buffer pH when $[HCHO_2] = 0.76M$ and $[CHO_2^-] = 0.32M$

Question 3

A buffer is made using the HF/F^- conjugate pair. The buffer has $pH = 4.15$ and $[F^-] = 0.76M$. Find $[HF] = 0.76M$

Question 4

A $25ml$ sample of HCl with unknown concentration is titrated using $0.125M$ NaOH. Titrating to the end point required $36ml$ of the NaOH titrant. What was the original unknown concentration?

When You See Water

By Alice Walker

When you see water in a stream
you say: oh, this is stream
water;
When you see water in the river
you say: oh, this is water
of the river;
When you see ocean
water
you say: This is the ocean's
water!
But actually water is always
only itself
and does not belong
to any of these containers
though it creates them.
And so it is with you.

Wild Geese

By Mary Oliver

You do not have to be good.
You do not have to walk on your knees
for a hundred miles through the desert repenting.
You only have to let the soft animal of your body
love what it loves.
Tell me about despair, yours, and I will tell you mine.
Meanwhile the world goes on.
Meanwhile the sun and the clear pebbles of the rain
are moving across the landscapes,
over the prairies and the deep trees,
the mountains and the rivers.
Meanwhile the wild geese, high in the clean blue air,
are heading home again.
Whoever you are, no matter how lonely,
the world offers itself to your imagination,
calls to you like the wild geese, harsh and exciting -
over and over announcing your place
in the family of things.