**Essays:** Choose **TWO** from the following essay question, and write your answer on this page.

You may do one other for EC – worth 10 pts. Answer must be in complete sentences.

E1. Compare and contrast active and passive transport. Be sure to use multiple examples of each in your essay.

Meaning : Give similarities and differences for each of the following – diffusion, facilitated diffusion, osmosis and active transport (endocytosis).

E2. Describe the structure and function of an enzyme.

Make a sketched graph of the activation energy. Label : activation energy; reaction with the enzyme; reaction without the enzyme. Please state whether your reaction on your graph is exergonic or endergonic.

E3. Diagram and explain EACH of the three types of tonicity: hypertonic, hypotonic and isotonic. Make sure to include concentration percentages and arrows showing the movement of water on your diagrams. You may use any percentages you want but should show solute concentration as well as water concentration. Please state what each cell would do, in each drawing, as a result of your reaction (gain, shrink, etc…).