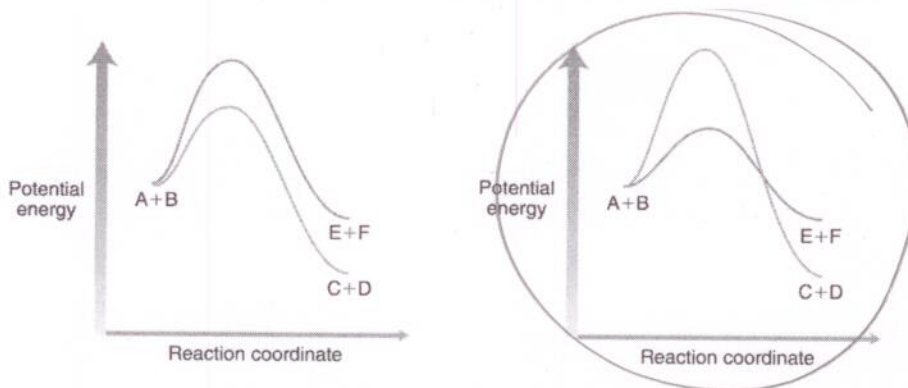


Quiz 4 (40 points)

Name Key

1. Which energy diagram shows a reaction with *kinetic* vs. thermodynamic control? (5 points)



2. With regard to the products formed, what is the effect of *temperature* on a reaction that has kinetic vs. thermodynamic control? (5 points)

For the reaction depicted in the diagram on the right, at low temperature the kinetic products E+F are formed faster and irreversibly, so are the major products. At high temperatures the reaction is reversible so the reaction favors the thermodynamic products C+D. Further at higher temps E+F are in equilibrium with C+D, which favor the more stable products.

3. Identify each of the following steps in the reaction below as proton transfer, nucleophilic attack, loss of a leaving group or (30 points)

