## CHEM106 Quiz 2

Please show all equations, all substitutions, all units, and all work to receive any credit

1. Draw the complete Lewis structures (to include all atoms, bonds, formal charges and lone electron pairs) for all reactants and products and clearly show the mechanism of action for the condensation reaction between ethanol (C<sub>2</sub>H<sub>5</sub>OH) and propanoic acid, (CH<sub>3</sub>CH<sub>2</sub>COOH).

2. Draw the complete Lewis structures (to include all atoms, bonds, formal charges and lone electron pairs) for all reactants and products and show the mechanism of action for the condensation reaction among a glycerol molecule, a dihydrogen phosphate ion [H<sub>2</sub>PO<sub>4</sub>]<sup>-1</sup>, and an ethanolamine molecule (HOCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>) that occurs during the formation of a phospholipid. The final product should show appropriate charges expected at physiological pH.