

Quiz 12.3 – Modern Materials

Name: Key

Question 1

Of the ionic compounds below, which would you expect to have the highest and lowest lattice energy

NaCl LiF MgO CaS
Lowest *Highest*

Question 2

In the space below, draw a band diagram for each of the following materials:

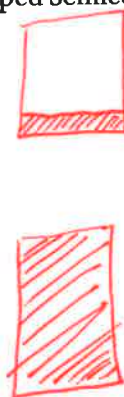
Metal



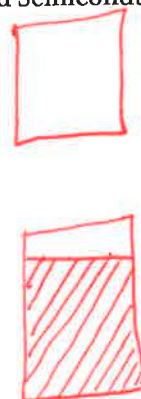
Semiconductor



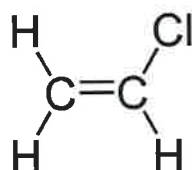
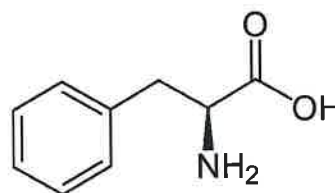
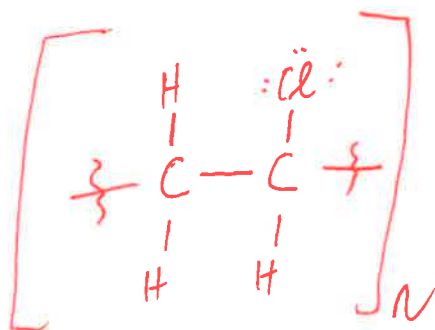
n-doped Semiconductor



p-doped Semiconductor



Question 3

Below are the chemical structures of two monomers. Draw the structure each would form when polymerized, and classify each polymer as an *addition* polymer or a *condensation* polymer*Addition**Condensation*