

Spring 1998 Take-Home Quiz

1. (10 points)

Distinguish between ionic and covalent bonding. What physical property is the basis of these different modes of bonding? Give specific examples of each type of bonding.

2. (10 points)

Use the VSEPR model to predict the molecular structure of HCN.

3. (10 points)

Use a vector diagram to designate the dipole moment of bromoform, HCBBr_3 .

4. (10 points)

Explain the physical significance of an orbital. Illustrate your answer with a specific example.

5. (10 points)

Draw a Lewis structure for the following compound. Clearly specify formal charges and draw all appropriate resonance structures.

