Quiz 11.3 - Covalent Bonds

Name: Kery

Problem 1 (2 points)

Consider the ion NCO⁻. List what sorts of bonds are present in this ion, what sorts of orbitals overlap to form the bonds, and what sorts of orbitals hold lone pairs.

$$SP \rightarrow : N = C - O:$$

Problem 2 (3 points)

Consider the ion NO_3^- . List what sorts of bonds are present in this ion, what sorts of orbitals overlap to form the bonds, and what sorts of orbitals hold lone pairs.

Without resonance

Sp2

T Sp2-Sp2

T, p-p

N

N

O, Sp3-Sp2

resonance hybrid

N N

all lone pairs: sp²
all bonds: o, sp²-sp²
IT. p-P