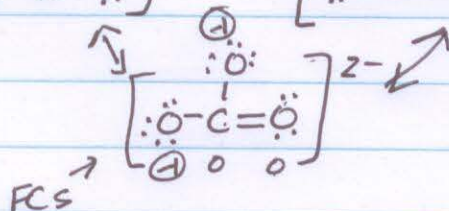
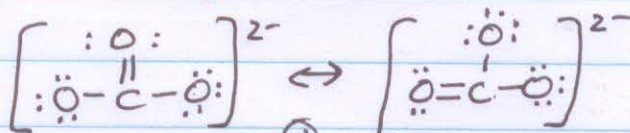
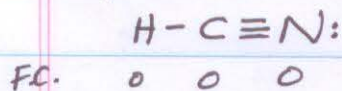


Practice Problems - 9/18/2019

1. a) Li_2CO_3 b) tetraphosphorus hexoxide c) Vanadium(III) oxide
d) SiCl_4

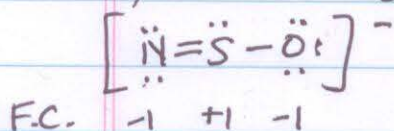
2. a) HCN $1+4+5=10\text{ve}^-$ b) CO_3^{2-} $4+3(6)+2=24\text{ve}^-$



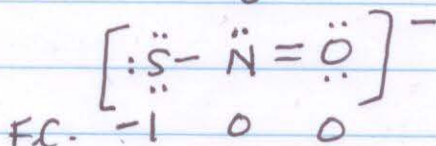
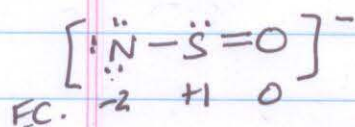
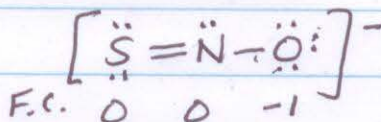
Need all 3 equivalent resonance structures here.

- c) SNO^- $6+5+6+1=18\text{ve}^-$

i.) Comparing S vs. N as central atom:

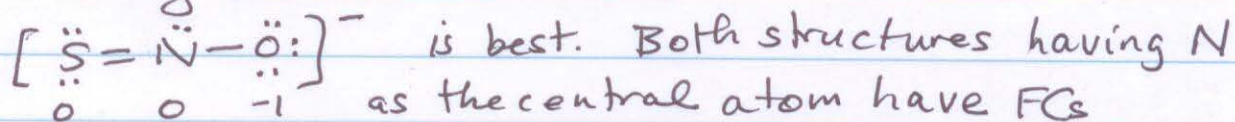


vs.



For a stable ion, N is the central atom. It allows for FCs to be minimized - as close to zero as possible $[0, 0, -1]$

ii) Choosing the best structure:



minimized; this structure additionally places the -1 F.C. on the more electronegative O atom - the atom that is best able to attract e^- to itself. Therefore, it gives the most reasonable picture of bonding.