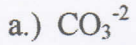
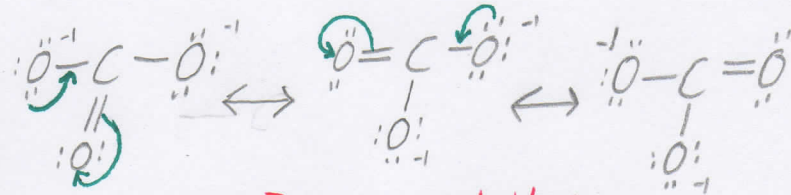
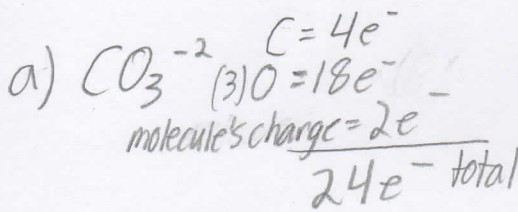


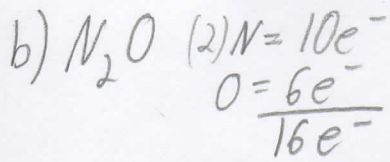
For each of the following molecules, draw all valid resonance structures and determine which structure if any contributes the most to the resonance hybrid.



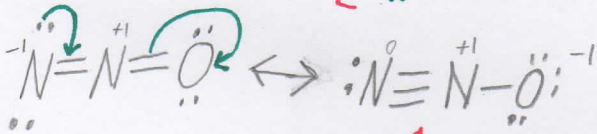
Step 1: Find out how many  $e^-$  you have  
 Step 2: Fill valence shells (octet rule)  
 Step 3: Push electrons



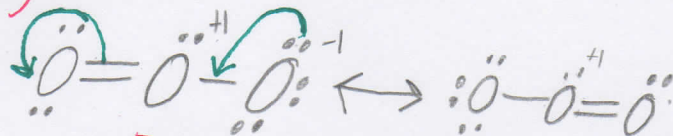
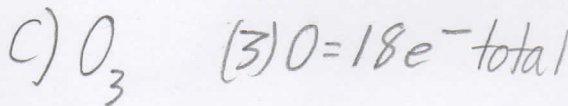
Equal contribution



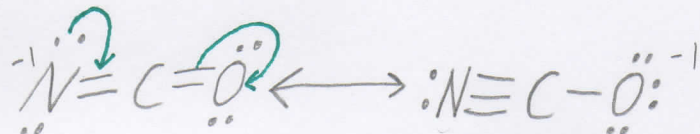
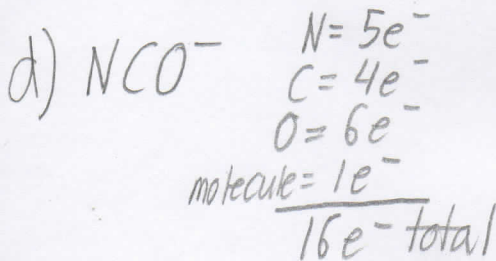
Do not put oxygen as central atom otherwise you end up giving oxygen, the more electronegative atom, a +2 formal charge.  
 $[\text{:}\ddot{\text{N}}\text{=}\overset{+2}{\text{O}}\text{=}\ddot{\text{N}}\text{:} \leftrightarrow \ddot{\text{N}}\text{=}\overset{+2}{\text{O}}\text{=}\ddot{\text{N}}\text{:}]$  Wrong arrangements



most contributing - oxygen carries the neg. charge



Equal contribution



Most contributing - oxygen is more electroneg. than nitrogen, so it should carry the -1 charge