

Name _____

CHE 310
F, 2008
First Hour Exam
Chapters 1-3

1 (12 pts) Draw a single Lewis dot structure for each the following, including formal charges where appropriate. Connectivity is either suggested (YES) or not suggested (NO) by the formula. Include all lone pairs and use lines for bonds (e. g., A-B, not A:B).

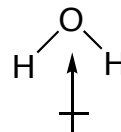
a) HNO_3 (no)

b) NOF (no)

c) HCNO (yes)

2. (9 pts) Draw **THREE** constitutional isomers of $\text{C}_3\text{H}_7\text{NO}$.

3. (12 pts) Using the correct combination of straight, wedge and dashed lines re-draw the compounds below in three-dimensional form and for those compounds that have dipole moments indicate the direction of the dipole, for example H_2O :



a) BF_3

b) NH_3

c) CH_3Cl