

CHE 101 EXAM 3 NAME _____

1-3. Draw the complete formula and show hybridization of all **carbon**, **nitrogen**, and **oxygen** atoms in a formula of :

<FORMULAS SHOWN>

Draw the Lewis structure and predict the shape of the following molecules and ions:

<A LIST OF MOLECULES SHOWN>

10-13. Predict the most probable monoatomic ions for the following elements:

<A LIST IS SHOWN>

14-16. Write an electron configuration and an orbital diagram for

<A LIST IS SHOWN>

17. Which of compounds listed are ionic?

<A LIST IS SHOWN>

18. Draw the Lewis structure of carbonate ion and show possible resonance structures.

19. How many orbitals are found in 7s subshell?

20. How many valence electrons are in a carbon atom?