School of Aygoda
KG, PRIMARY, SECONDARY & COLLEGE PREPARATORY
Academic Year 2012E.C
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Full name: _____ Date:_____

Grade: 11 Section: _____Subject: - Chemistry 3rd Quarter Work sheet 2

I. Answer the following questions.

1. How many sigma and pi bonds are present in H_3C –C=C-CH_3.
2. What hybridization change does the carbon atom undergo in the combustion of methane?

   CH_4 (g0+1O (g) ⟶ CO_2 (g) + $2H_2O$
3. The hybridization of the atom central in the XeF4 molecule is _____.
4. Which of the following atoms in its ground state has the greatest number of unpaired electrons, 4si. 16S, 13AL, 14Si
5. How many pi-bonds present in CO_2.
6. Which of the following molecular ions will exhibit delocalized bonding?
7. Arrange the following in increasing order of stability 0_2,O_2^+,$O^-O_2^{2-}$
8. Classify the following molecular species as paramagnetic or diamagnetic substances and calculate bond order by writing the electron configuration.

   A. NO^- D. N2 G. CN^-

   B. F_2 E. NO H. CO

   C. H_2^+ F. Ne_2