CHE 101 - Homework - Ch 2b Periodic Table Basics

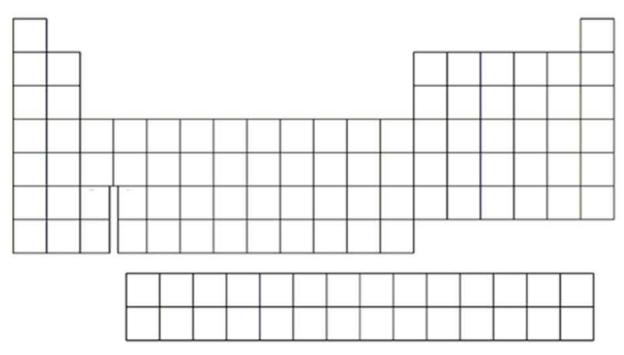
Score: _____/60

Name	: _			Date:
3 pt]	1.	Who designed the periodic located (rows and columns)?	= = ` ,	ed to determine where the elements are
2 pt]	2.	List the Alkali metals. Which	ch column in the periodic table a	re they contained in?
2 pt]	3.	List the element that are na	turally found as gases (11).	
2 pt]	4.	List the elements that are n	aturally found as diatomic molec	ules (7).
4 pt]	5.	List the 7 metalloids. Why i	is important to know them?	
5 pt]	6.	What are some differences b	between metals and nonmetal? (L	uist 5)
		Property	Metal	Nonmetal
		1.		

Property	Metal	Nonmetal
1.		
2.		
3.		
4.		
5.		

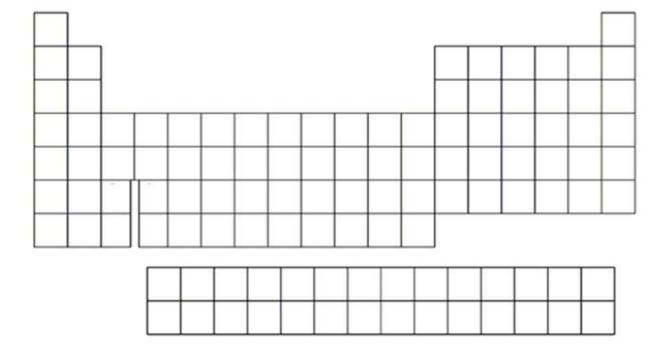
[7 pt] 7. Label the following on the periodic table below:

(a) Alkali metals (b) Alkaline Earth metals (c) Transition metals (d) Halogens (e) Noble Gases (f) Actinides (h) Lanthinides



[3 pt] 8. Label the following on the periodic table below:

(a) Liquids (b) Gases (c) Solid (just kidding there are too many! (d) Metalloids



9	ntl	Q	Define	the	term	Com	nound.
4	DU	9.	Denne	une	term	COIII	pouna:

[7 pt] 10. What are the differences between Ionic compounds and Covalent/Molecular compounds?

Property	Ionic	Covalent/Molecular
1. Formed by		,
2. Between		
3. Bond Strength		
4. Melting Point		
5. Solubility		
6. Conductivity		
5. Structure		

[5 pt] 11. Identify the following compounds as either (I)onic or (M)olecular. Explain.

(-)	(a) Potassium Chloride (KCl)	11(a)	
	()	()	

(b) Sugar
$$(C_{12}H_{22}O_{12})$$
 11(b) ______

(d) Iron (III) Bromide (FeBr
$$_3$$
) 11(d) _____

(e) Water
$$(H_2O)$$
 11(e) ______

[2 pt] 12.	2 pt] 12. What do subscripts mean in a chemical formula? Which subscript do we never use? Why?		
[2 pt] 13.	Wha	at do parenthesis mean in a chemical formula? How will we know wh	en to use them?
10 pt] 14.	How	w many atoms of the indicated element are in each formula:	
	(a)	Hydrogen in $\mathrm{H_2SO_4}$	14(a)
	(b)	Carbon in $\mathrm{H_2CO_3}$	14(b)
	(c)	Oxygen in H_2CO_3	14(c)
	(d)	Nitrogen in $(NH_4)_2SO_4$	14(d)
	(e)	Hydrogen in $(NH_4)_2SO_4$	14(e)
	(f)	Oxygen in $(NH_4)_2SO_4$	14(f)
	(g)	Nitrogen in $\mathrm{NH_4NO_3}$	14(g)
	(h)	Nitrogen ${\rm HNO_3}$	14(h)
	(i)	Hydrogen in $HC_2H_3O_2$	14(i)
	(j)	Chlorine in CCl_4	14(j)
[4 pt] 15.	Inte	rpret the difference in meaning between the following pairs:	
	(a)	Si and SI	
	(b)	Pb and PB	
	(c)	$4P$ and P_4	
	(d)	CO and Co	