

NO CREDIT IF YOU: Fail to put in the Units & Properly Round, Fail to show ALL math work

Max Grade: 100 points

PRINT NAME ON LINE \_\_\_\_\_

Test End time \_\_\_\_\_

Test Start time \_\_\_\_\_

Test Elapsed time \_\_\_\_\_

**A. Answer the Following ( 3 Points each = 45 pts )**

1-3. Name 3 elements that make up the human body at 1% or more

\_\_\_\_\_

4-5. Name 2 two crucial trace elements in the human body and what purpose do they serve?

\_\_\_\_\_

\_\_\_\_\_

6-7. The Sun sends \_\_\_\_\_ to the earth where it is absorbed. This is then radiated out in the form of \_\_\_\_\_ where it is absorbed by CO<sub>2</sub> in the upper atmosphere

8-9. Rutherford discovered the present day structure of the atom by shooting an \_\_\_\_\_ at a lead and gold plate. This particle that he shot has a \_\_\_\_\_ charge

10-12 Fill in the following chart to show the particles that make up an element:

<u>Name</u>	<u>Charge</u>	<u>Relative Mass</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

13. What is the Nuclide Symbol for radioactive carbon that has 6 protons and electrons and 8 neutrons?

14. Electrons exist at various states. When they are kind of in a Rest state or low energy state, they are said to be in the

15. Carbon can exist with 6 or 8 neutrons. These forms of Carbon are called?

**B. Fill in the blanks ( 3 Points each = 45 pts )**

<u>Name</u>	<u>Formulae</u>
1. Sodium Hydroxide	_____
2. _____	CsClO <sub>3</sub>
3. _____	AgNO <sub>2</sub>
4. Calcium Bicarbonate	_____
5. Zinc Bromide	_____
6. Aluminum Cyanide	_____
7. _____	H <sub>2</sub> SO <sub>4</sub>
8. _____	CuO
9. _____	Fe(NO <sub>3</sub> ) <sub>3</sub>
10. _____	PbS <sub>2</sub>
11. _____	NO <sub>4</sub>
12. Ammonium Sulfate	_____
13. _____	HNO <sub>3</sub>
14. Aluminum Sulfate	_____
15. _____	H <sub>3</sub> PO <sub>4</sub>

**C. Perform the following Calculations [ Show All Math ] ( 5 pts ea = 10 pts )**

1. What is the Molecular Weight of HCN?

2. I just weighted out 45.2 mg. How many kg is this?

**DID YOU CHECK FOR SIGNIFICANT DIGITS**                     Yes      No

**DID YOU CHECK FOR PROPER UNITS**                     Yes      No

**How do you rate this test from 1 to 10**                    \_\_\_\_\_

1 = Very Easy, can do it with my eyes closed, 10= Very Very Difficult, could not do any of the problems

1	1 <b>H</b> 1.008	↓ 2A											3A	4A	5A	6A	7A	2 <b>He</b> 4.003
2	3 <b>Li</b> 6.941	4 <b>Be</b> 9.012											5 <b>B</b> 10.81	6 <b>C</b> 12.01	7 <b>N</b> 14.01	8 <b>O</b> 16.00	9 <b>F</b> 19.00	10 <b>Ne</b> 20.18
3	11 <b>Na</b> 22.99	12 <b>Mg</b> 24.31	[REDACTED]										13 <b>Al</b> 26.98	14 <b>Si</b> 28.09	15 <b>P</b> 30.97	16 <b>S</b> 32.07	17 <b>Cl</b> 35.45	18 <b>Ar</b> 39.95
4	19 <b>K</b> 39.10	20 <b>Ca</b> 40.08	21 <b>Sc</b> 44.96	22 <b>Ti</b> 47.88	23 <b>V</b> 50.94	24 <b>Cr</b> 52.00	25 <b>Mn</b> 54.94	26 <b>Fe</b> 55.85	27 <b>Co</b> 58.93	28 <b>Ni</b> 58.69	29 <b>Cu</b> 63.55	30 <b>Zn</b> 65.38	31 <b>Ga</b> 69.72	32 <b>Ge</b> 72.59	33 <b>As</b> 74.92	34 <b>Se</b> 78.96	35 <b>Br</b> 79.90	36 <b>Kr</b> 83.80
5	37 <b>Rb</b> 85.47	38 <b>Sr</b> 87.62	39 <b>Y</b> 88.91	40 <b>Zr</b> 91.22	41 <b>Nb</b> 92.91	42 <b>Mo</b> 95.94	43 <b>Tc</b> (98)	44 <b>Ru</b> 101.1	45 <b>Rh</b> 102.9	46 <b>Pd</b> 106.4	47 <b>Ag</b> 107.9	48 <b>Cd</b> 112.4	49 <b>In</b> 114.8	50 <b>Sn</b> 118.7	51 <b>Sb</b> 121.8	52 <b>Te</b> 127.6	53 <b>I</b> 126.9	54 <b>Xe</b> 131.3
6	55 <b>Cs</b> 132.9	56 <b>Ba</b> 137.3	57 <b>La*</b> 138.9	72 <b>Hf</b> 178.5	73 <b>Ta</b> 180.9	74 <b>W</b> 183.9	75 <b>Re</b> 186.2	76 <b>Os</b> 190.2	77 <b>Ir</b> 192.2	78 <b>Pt</b> 195.1	79 <b>Au</b> 197.0	80 <b>Hg</b> 200.6	81 <b>Tl</b> 204.4	82 <b>Pb</b> 207.2	83 <b>Bi</b> 209.0	84 <b>Po</b> (209)	85 <b>At</b> (210)	86 <b>Rn</b> (222)
7	87 <b>Fr</b> (223)	88 <b>Ra</b> 226	89 <b>Ac**</b> (227)	104 <b>Rf</b> (261)	105 <b>Db</b> (262)	106 <b>Sg</b> (263)	107 <b>Bh</b> (264)	108 <b>Hs</b> (265)	109 <b>Mt</b> (268)	110 <b>Ds</b> (271)	111 <b>Rg</b> (272)	112 <b>Uub</b>	113 <b>Uut</b>	114 <b>Uuq</b>	115 <b>Uup</b>			