CHM 1025C
George W.J. Kenney, Jr
CT-2
Ch 3,4
NO CREDIT IF YOU: Fail to put in the Units \& Properly Round, Fail to show ALL math work
Max Grade: 101 points ( 1 pt) PRINT NAME ON LINE $\qquad$
CHECK CORRECT BOX OR LOOSE 20 PTS
Wed Afternoon Lab
Wed Evening Lab

## Test End time

Test Start time
Test Elapsed time $\qquad$

## A. Answer the Following ( 4 Points each = 100 pts )

1. Name the states that matter can exist in:
2. Water boils at $100^{\circ} \mathrm{C}$, is this a Physical or Chemical Property?
3. A plant grows, is this a Physical or Chemical Property?
4. What is the difference between an element and a compound?
5. What kind of a mixture is McDonalds CheeseBurger?
6. Can you purify the salt and pepper mixture by distillation?

7-10. Give the element name and symbol for 4 compounds that exist on Planet Earth over 1\%:

| Name | Symbol | Name |  | Symbol |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  | Symbol |  | Name |
|  | - |  |  |  |

11-12: Give the element name and symbol for 2 compounds that exist in the Human Body over $1 \%$ :
Name Symbol Name Symbol
$\qquad$

13-14: Name 2 crucial trace elements used in the human body and their use:
Name Symbol Use
$\qquad$
15. What does Diatomic mean? Give 2 examples?
16. What particle has a positive charge?
17. What is the name and charge on the particle that Rutherford he used?
18. What are the names and the relative sizes of the sub element particles?
19. Sodium can exist with a molecular weight of 23 and 24 . What name is given to this
20. Sodium 23 contains 11 protons, what is the Nuclide Symbol for this particular element?
21. What is the name given to the column that contains $\mathrm{Li}, \mathrm{Na}, \mathrm{K}$ etc?
22. What is the name given to the column that contains $\mathrm{F}, \mathrm{Cl}, \mathrm{Br}$, etc?
23. Carbon exists as diamond, graphite, coal and other forms. What name is given to this sequence?

24-25. 1234.563
123.45
12.345
5000.0
$\times \quad 2$

DID YOU CHECK FOR SIGNIFICANT DIGITS $\qquad$ Yes $\qquad$ No

DID YOU CHECK FOR PROPER UNITS
Yes $\qquad$ 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 | $\begin{gathered} 1 \\ \mathbf{H} \\ 1.008 \end{gathered}$ | 2A |  |  |  |  |  |  |  |  |  |  | 3A | 4A | 5A | 6A | $7_{\mathrm{A}}^{\prime}$ | $\begin{gathered} 2 \\ \mathrm{He} \\ 4.003 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline 3 \\ \mathbf{L i} \\ 6.941 \end{gathered}$ | $\begin{gathered} 4 \\ \mathbf{B e} \\ 9.012 \end{gathered}$ |  |  |  |  |  |  |  |  |  |  | 5 <br> $\mathbf{B}$ <br> 10.81 | $\begin{gathered} 6 \\ \mathbf{C} \\ 12.01 \end{gathered}$ | $\begin{gathered} \mathbf{7} \\ \mathbf{N} \\ 14.01 \end{gathered}$ | $\begin{gathered} 8 \\ \mathbf{0} \\ 16.00 \end{gathered}$ | $\begin{gathered} 9 \\ \mathbf{F} \\ 19.00 \end{gathered}$ | $\begin{gathered} 10 \\ \mathrm{Ne} \\ 20.18 \end{gathered}$ |
|  | $\begin{gathered} 11 \\ \mathbf{N a} \\ 22.99 \end{gathered}$ | $\begin{gathered} 12 \\ \mathbf{M g} \\ 24.31 \end{gathered}$ |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} 13 \\ \text { A1 } \\ 26.98 \end{gathered}$ | 14 $\mathbf{S i}$ 28.09 | $\begin{gathered} \mathbf{1 5} \\ \mathbf{P} \\ 30.97 \end{gathered}$ | $\begin{gathered} 16 \\ \mathbf{S} \\ 32.07 \end{gathered}$ | $\begin{gathered} 17 \\ \mathbf{C l} \\ 35.45 \end{gathered}$ | $\begin{gathered} 18 \\ \mathbf{A r} \\ 39.95 \end{gathered}$ |
|  | $\begin{gathered} 19 \\ \mathbf{K} \\ 39.10 \end{gathered}$ | $\begin{gathered} 20 \\ \mathbf{C a} \\ 40.08 \end{gathered}$ | $\begin{gathered} 21 \\ \mathbf{S c} \\ 44.96 \end{gathered}$ | $\begin{gathered} 22 \\ \mathbf{T i} \\ 47.88 \end{gathered}$ | $\begin{gathered} 23 \\ \mathbf{V} \\ 50.94 \end{gathered}$ | $\begin{gathered} 24 \\ \mathbf{C r} \\ 52.00 \end{gathered}$ | $\begin{gathered} 25 \\ \mathbf{M n} \\ 54.94 \end{gathered}$ | $\begin{gathered} 26 \\ \mathbf{F e} \\ 55.85 \end{gathered}$ | $\begin{gathered} 27 \\ \mathbf{C o} \\ 58.93 \end{gathered}$ | $\begin{gathered} 28 \\ \mathbf{N i} \\ 58.69 \end{gathered}$ | $\begin{gathered} 29 \\ \mathbf{C u} \\ 63.55 \end{gathered}$ | $\begin{gathered} 30 \\ \mathbf{Z n} \\ 65.38 \end{gathered}$ | $\begin{gathered} 31 \\ \mathbf{G a} \\ 69.72 \end{gathered}$ | 32 $\mathbf{G e}$ 72.59 | $\begin{gathered} 33 \\ \text { As } \\ 74.92 \\ \hline \end{gathered}$ | 34 $\mathbf{S e}$ 78.96 | $\begin{gathered} 35 \\ \mathbf{B r} \\ 79.90 \end{gathered}$ | $\begin{gathered} 36 \\ \mathbf{K r} \\ 83.80 \end{gathered}$ |
| 5 | $\begin{gathered} 37 \\ \mathbf{R b} \\ 85.47 \end{gathered}$ | $\begin{gathered} 38 \\ \mathbf{S r} \\ 87.62 \end{gathered}$ | $\begin{gathered} 39 \\ \mathbf{Y} \\ 88.91 \end{gathered}$ | $\begin{gathered} 40 \\ \mathbf{Z \mathbf { r }} \\ 91.22 \end{gathered}$ | $\begin{gathered} 41 \\ \mathbf{N b} \\ 92.91 \end{gathered}$ | $\begin{gathered} 42 \\ \text { Mo } \\ 95.94 \end{gathered}$ | 43 <br> Tc <br> (98) | $\begin{gathered} 44 \\ \mathbf{R u} \\ 101.1 \end{gathered}$ | $\begin{gathered} 45 \\ \mathbf{R h} \\ 102.9 \end{gathered}$ | $\begin{gathered} 46 \\ \text { Pd } \\ 106.4 \end{gathered}$ | $\begin{gathered} 47 \\ \mathbf{A g} \\ 107.9 \end{gathered}$ | $\begin{gathered} 48 \\ \mathbf{C d} \\ 112.4 \end{gathered}$ | $\begin{gathered} 49 \\ \text { In } \\ 114.8 \end{gathered}$ | $\begin{gathered} 50 \\ \text { Sn } \\ 118.7 \end{gathered}$ | $\begin{gathered} 51 \\ \mathbf{S b} \\ 121.8 \end{gathered}$ | $\begin{gathered} 52 \\ \mathrm{Te} \\ 127.6 \end{gathered}$ | $\begin{gathered} 53 \\ \text { I } \\ 126.9 \end{gathered}$ | 54 <br> $\mathbf{X e}$ <br> 131.3 |
| 6 | $\begin{gathered} 55 \\ \text { Cs } \\ 132.9 \end{gathered}$ | $\begin{array}{r} 56 \\ \mathbf{B a} \\ 137.3 \end{array}$ | $\begin{gathered} 57 \\ \mathbf{L a} \mathbf{a}^{*} \\ 138.9 \end{gathered}$ | $\begin{gathered} 72 \\ \text { Hf } \\ 178.5 \end{gathered}$ | $\begin{gathered} 73 \\ \mathbf{T a} \\ 180.9 \end{gathered}$ | $\begin{gathered} 74 \\ \mathbf{W} \\ 183.9 \end{gathered}$ | $\begin{gathered} 75 \\ \mathbf{R e} \\ 186.2 \end{gathered}$ | $\begin{gathered} 76 \\ \text { Os } \\ 190.2 \end{gathered}$ | $\begin{gathered} 77 \\ \mathbf{I r} \\ 192.2 \end{gathered}$ | $\begin{gathered} 78 \\ \text { Pt } \\ 195.1 \end{gathered}$ | $\begin{gathered} 79 \\ \mathbf{A u} \\ 197.0 \end{gathered}$ | $\begin{gathered} 80 \\ \mathbf{H g} \\ 200.6 \end{gathered}$ | $\begin{gathered} 81 \\ \text { T1 } \\ 204.4 \end{gathered}$ | $\begin{gathered} 82 \\ \mathbf{P b} \\ 207.2 \end{gathered}$ | $\begin{gathered} 83 \\ \mathbf{B i} \\ 209.0 \end{gathered}$ | $\begin{array}{\|c\|} \hline 84 \\ \mathbf{P o} \\ (209) \\ \hline \end{array}$ | $\begin{gathered} 85 \\ \text { At } \\ (210) \end{gathered}$ | $\begin{gathered} 86 \\ \mathbf{R n} \\ (222) \end{gathered}$ |
| 7 | $\begin{gathered} 87 \\ \mathbf{F r} \\ (223) \end{gathered}$ | $\begin{array}{r} 88 \\ \mathbf{R a} \\ 226 \\ \hline \end{array}$ | $\begin{gathered} 89 \\ \mathbf{A c}^{* *} \\ (227) \\ \hline \end{gathered}$ | $\begin{gathered} 104 \\ \mathbf{R f} \\ (261) \end{gathered}$ | $\begin{gathered} 105 \\ \mathbf{D b} \\ (262) \\ \hline \end{gathered}$ | $\begin{gathered} 106 \\ \mathbf{S g} \\ (263) \end{gathered}$ | $\begin{gathered} 107 \\ \mathbf{B h} \\ (264) \end{gathered}$ | $\begin{gathered} 108 \\ \text { Hs } \\ (265) \end{gathered}$ | $\begin{gathered} 109 \\ \text { Mt } \\ (268) \end{gathered}$ | $\begin{gathered} 110 \\ \text { Ds } \\ (271) \end{gathered}$ | $\begin{gathered} 111 \\ \mathbf{R g} \\ (272) \end{gathered}$ | $\begin{gathered} 112 \\ \mathbf{U u b} \end{gathered}$ | $\begin{aligned} & 113 \\ & \text { Uut } \end{aligned}$ | $\begin{gathered} 114 \\ \text { Uuq } \end{gathered}$ | $\begin{aligned} & 115 \\ & \text { Uup } \end{aligned}$ |  |  |  |

