

**YOUR NAME (Please Print):** \_\_\_\_\_

1. (3pts, 1 pts ea)    Your start time on this test \_\_\_\_\_
- Your finish time on this test: \_\_\_\_\_
- Time it took you to do this test: \_\_\_\_\_

**A. (5 pts each ) Perform the following Conversion**

1. Convert 32 Deg K to Deg F:

2. Convert -123 Deg F to Deg K

**B. Elemental Knowledge – FILL IN THE BLANKS** **DO 25 OF THE 29**

1 What is an Element

2 Name and give the chemical symbols for the three most abundant elements in the earth crust, ocean and atmosphere

<u>NAME</u>	<u>SYMBOL</u>
A. _____	A. _____
B. _____	B. _____
C. _____	C. _____

3 Name and give the chemical symbols for four abundant elements in the human body [ > 1% ]:

<u>NAME</u>	<u>SYMBOL</u>
A. _____	A. _____
B. _____	B. _____
C. _____	C. _____
D. _____	D. _____

4. Name [ Name and Symbol ] the 2 of the inert gases

<u>NAME</u>	<u>SYMBOL</u>
A. _____	A. _____
B. _____	B. _____

5. An Element is made of tiny particles called \_\_\_\_\_

6. Protons have a \_\_\_\_\_ charge

7 Write the names of the components of an element in order of mass

Largest Mass \_\_\_\_\_

Smaller Mass \_\_\_\_\_

Smallest Mass \_\_\_\_\_

8. Rutherford's experiment demonstrated that the atomic structure was not that of plum pudding. He used a

\_\_\_\_\_ particle and it had a \_\_\_\_\_ charge

9 The nucleus of an atom has a \_\_\_\_\_ charge

10. An atom with different number of neutrons is called \_\_\_\_\_

11. The number of protons in the nucleus of an atom is also called it's \_\_\_\_\_

12. The number of protons and neutrons in an atom is also called it's \_\_\_\_\_

13. Different number of \_\_\_\_\_ in the nucleus of an atom result in various \_\_\_\_\_ of that atom

14. A Sodium atom may contain 11 protons, 11 electrons and 12 neutrons. Write out the symbol for this sodium atom:

\_\_\_\_\_

15. The periodic table has atoms in order of \_\_\_\_\_

16. Give another name for at least 4 of the columns in the periodic table

A. \_\_\_\_\_

C. \_\_\_\_\_

B. \_\_\_\_\_

D. \_\_\_\_\_

17. Vertical columns are also called:

18. Nonmetals are located where in the periodic table

19. What has a mixture of metallic and nonmetallic properties

20. Name and give the chemical symbols two diatomic molecules

NAME  
A. \_\_\_\_\_

SYMBOL  
A. \_\_\_\_\_

B. \_\_\_\_\_

B. \_\_\_\_\_

21. Different forms of the same element such as Carbon that can exist as a diamond or graphite are called

22. When we take an electron away from a neutral atom we form a

23. Salt water conducts electricity, sugar in water does not. Why?

24. Energy is transferred by

25. Name the properties of electromagnetic radiation

**26. Light travels through space as a stream of:**

**27. What is the name of an atom in its rest state, in its high energy state**

**28. The stairstep energy states show that the energy of an electron is**

**29. The Pauli Exclusion Principle states that**

### C. Multiple Choice

## DO 5

1. A Chemical Formula shows \_\_\_\_\_
  - A. How to make a compound
  - B. The number of protons, neutrons and electrons in the compound
  - C. The types and number of atoms in the substance
  - D. The types and number of atoms in the element
  - E. The types and number of atoms in the compound
  - F. None of the above
  
2. What determines chemical behavior? \_\_\_\_\_
  - A. Electrons
  - B. Protons
  - C. Neutrons
  - D. None of the above
  
3. Binary Compounds contain: \_\_\_\_\_
  - A. A Metal
  - B. A Metal and a Non-Metal
  - C. A Non-Metal
  - D. None of the above
  
4. The Roman society was believed to have failed partially due to: \_\_\_\_\_
  - A. Poor leadership
  - B. Drinking too much wine
  - C. Eating too much sugar
  - D. Accidentally ingesting lead
  - E. None of the above
  
5. To become a Cation, an element must: \_\_\_\_\_
  - A. Get in a fight with a dog
  - B. Loose an electron
  - C. Gain an electron
  - D. Gain a neutron
  - E. None of the above
  
6. To become an Anion, an element must: \_\_\_\_\_
  - A. Loose an electron
  - B. Gain an electron
  - C. Loose a neutron
  - D. None of the above
  
7. When naming a binary ionic compound: \_\_\_\_\_
  - A. The Anion is named first
  - B. The Cation is named first
  - C. The most complex part of the compound is named first
  - D. None of the above

## D. Name the following Compounds

1. Sodium Chloride \_\_\_\_\_

2.  $\text{Al}_3\text{S}_2$  \_\_\_\_\_

3. Barium Sulfide \_\_\_\_\_

4.  $\text{CsF}$  \_\_\_\_\_

5. Magnesium Iodide \_\_\_\_\_

6.  $\text{FeCl}_3$  \_\_\_\_\_

7. Copper (I) Chloride \_\_\_\_\_

8.  $\text{SnO}_2$  \_\_\_\_\_

9.  $\text{PbO}$  \_\_\_\_\_

10.  $\text{BF}_3$  \_\_\_\_\_

11.  $\text{NO}$  \_\_\_\_\_

12.  $\text{N}_2\text{O}_2$  \_\_\_\_\_

13. Sodium Sulfite \_\_\_\_\_

14.  $\text{KHSO}_4$  \_\_\_\_\_

15. Potassium Phosphate \_\_\_\_\_

16.  $\text{KHCO}_3$  \_\_\_\_\_

17.  $\text{NH}_4\text{ClO}_3$  \_\_\_\_\_

18.  $\text{NH}_4 \text{Cr}_2\text{O}_7$  \_\_\_\_\_

19. Sulfuric Acid \_\_\_\_\_

20. HF \_\_\_\_\_

21. Nitric Acid \_\_\_\_\_

**Summary:**

<b>Section</b>	<b># of Quest</b>	<b>Pts Ea</b>	<b># to do</b>	<b>Total Pts</b>	
<b>A. Conversion</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>10 %</b>	_____
<b>B. Fill in the Blanks</b>	<b>29</b>	<b>2</b>	<b>25</b>	<b>50 %</b>	_____
<b>C. Multiple Choice</b>	<b>7</b>	<b>2</b>	<b>5</b>	<b>10 %</b>	_____
<b>D. Naming Compounds</b>	<b>21</b>	<b>2</b>	<b>15</b>	<b>30 %</b>	_____
<b>Total</b>				<b>100 %</b>	_____

7. 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