

## Intro/Naming : Test-80

1) Define the following:

- a) Matter
- b) Mass
- c) Law of Conservation of Matter
- d) Element
- e) Compound
- f) Solution
- g) Chemical Reaction

2) Convert:

- a)  $5.0 \text{ mm} = \text{_____ m}$
- b)  $100. \text{ km}^2 = \text{_____ m}^2$
- c)  $2.0 \text{ g/cm}^3 = \text{_____ kg/m}^3$

3) Classify as an; element (e), compound (c), solution (s), or a mechanical mixture (mm).

- |  |                                |           |
|--|--------------------------------|-----------|
| a) scandium  | b) concrete                    | c) coffee |
| d) glucose ( $\text{C}_6\text{H}_{12}\text{O}_6$ ) | e) sulfur gas ( $\text{S}_8$ ) | f) steam  |
| g) a crystal                                       | h) coke                        | i) steel  |

4) Name any metalloid.

5) Give any property of a non-metal.

6) Name an element that is more metallic than radium.

7) a) Name the element K \_\_\_\_\_

b) The usual combining capacity is \_\_\_\_\_

- c) The number of protons is \_\_\_\_\_
- d) The usual number of electrons is \_\_\_\_\_
- e) The usual number of neutrons is \_\_\_\_\_
- 8) What is true of elements in a group ?
- 9) What is the usual charge on a phosphorus atom ?
- 10) Name the following compounds.
- |                               |                              |
|-------------------------------|------------------------------|
| a) $\text{SO}_2$              | b) $\text{CaF}_2$            |
| c) $\text{P}_2\text{O}_4$     | d) $\text{PbCl}_4$           |
| e) $\text{Rb}_2\text{SO}_4$   | f) $\text{N}_2\text{O}_3$    |
| g) $\text{Li}_2\text{CO}_3$   | h) $(\text{NH}_4)_2\text{S}$ |
| i) $\text{Pb}(\text{CO}_3)_2$ | j) $\text{Fe}(\text{CN})_2$  |

11) Give the formula.

- |                        |                       |
|------------------------|-----------------------|
| a) boron trifluoride   | b) sulfur trioxide    |
| c) diiodine pentaoxide | d) sodium cyanide     |
| e) lead (II) chromate  | f) iron (III) sulfite |
| g) tin (IV) nitrate    | h) nitrogen monoxide  |

Answers: 1)a) Anything that has mass and volume., b) The quantity of matter., c) Matter is never created or destroyed., d) They are substances that can't be broken down. They are made up of one type of atom., e) It is a substance composed of two or more atoms in a definite proportion., f) It is a homogeneous mixture., g) One or more compounds react to form one or more new compounds., 2)a)  $5.0 \times 10^{-3}$ , b)  $1.00 \times 10^8$ , c)  $2.0 \times 10^3$ , 3)a) e, b) mm, c) mm, d) c, e) e, f) c, g) e or c, h) s, i) s., 4) There are several; B, Si, Ge, As, Sb, or Te., 5) Non-metals are; not shiny, not good conductors (for both electricity and heat), not ductile, and not malleable., 6) francium, 7)a) potassium, b)

+1, c) 19, d) 19, e) 20, 8) They have similar properties., 9) -3, 10)a) sulfur dioxide, b) calcium fluoride, c) diphosphorus tetraoxide, d) lead (IV) chloride, e) rubidium sulfate, f) dinitrogen trioxide, g) lithium carbonate, h) ammonium sulfide, i) lead (IV) carbonate, j) iron (II) cyanide, 11)a)  $\text{BF}_3$ , b)  $\text{SO}_3$ , c)  $\text{I}_2\text{O}_5$ , d)  $\text{NaCN}$ , e)  $\text{PbCrO}_4$ , f)  $\text{Fe}_2(\text{SO}_3)_3$ , g)  $\text{Sn}(\text{NO}_3)_4$ , h)  $\text{NO}$ .