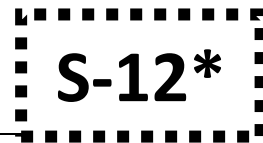


Dougherty Valley HS Chemistry  
Fall Test #2 - Practice Packet



This practice packet is a general guideline to help you study. It is NOT a definitive list. There are potentially things on here that will not show up on the test, and there are potentially things not on this list that will show up on the test. Material that appeared in Warm Ups, Notes, Homework, Classwork, Labs, Study Materials, etc are all have the potential to appear on the test.

**Start with the optional worksheets you already have!**

- 1) Worksheet #9\* from Chapter 4 packet
- 2) Worksheet #16\* from Chapter 5 packet
- 3) Worksheet #5\* from Chapter 6 packet

**Answer the following questions:**

- 4) Define: reactivity, atomic radius, electronegativity, ionization energy, electron affinity
- 5) Describe the pattern going up/down left/right for each of the trends above
- 6) Explain WHY each trend happens the way it does up/down left/right. Give the BEST answer.
- 7) Where are the most active metals located?
- 8) Where are the most active non-metals located?
- 9) Is negative ion larger/smaller than parent atom?
- 10) Is positive ion larger/smaller than parent atom?
- 11) Where is the highest electronegativity found?
- 12) Where is the lowest electronegativity found?
- 13) Elements of Group 1A are called
- 14) Elements of Group 2A are called
- 15) Elements in middle of periodic table are called
- 16) Group 7A elements are called
- 17) Group 8A elements are called
- 18) From left to right across the periodic table, do elements go from (metals to nonmetals) or (nonmetals to metals)?
- 19) The most active element in Group 7A is
- 20) What orbitals are filling across Transition Elements?
- 21) Elements within a group have same number of?
- 22) Are the majority of elements in the periodic table metals or non metals
- 23) Elements in the periodic table are arranged according to their what?

**24)** For each set of atoms, rank the atoms from smallest to largest atomic radius.

- a) Li, C, F
- b) Li, Na, K
- c) Ge, P, O
- d) C, N, Al
- e) Al, Cl, Cu

**25)** For each set of atoms, rank them from lowest to highest ionization energy.

- a) Mg, Si, S
- b) Mg, Ca, Ba
- c) F, Cl, Br
- d) Ba, Cu, Ne
- e) Si, P, He

**26)** For each set of atoms, rank them from lowest to highest electronegativity.

- a) Li, C, N
- b) Ne, C, O
- c) Si, P, O
- d) Mg, K, P
- e) S, F, He

**27) Circle the correct element.**

Li	Si	S	metal
N	P	As	smallest ionization energy
K	Ca	Sc	largest atomic mass
S	Cl	Ar	member of the halogen family
Al	Si	P	greatest electronegativity
Ga	Al	Si	largest atomic radius
V	Nb	Ta	largest atomic number
Te	I	Xe	member of noble gases
Si	Ge	Sn	4 energy levels
Li	Be	B	member of alkali metals
As	Se	Br	6 valence electrons
H	Li	Na	nonmetal
Hg	Tl	Pb	member of transition metals
Na	Mg	Al	electron config. ending in $s^2p^1$
Pb	Bi	Po	metalloid
B	C	N	gas at room temperature
Ca	Sc	Ti	electron config. ending in $s^2d^2$

**Identify type of bond and then either write the name or write the formula:**

- |                                |                        |                                     |                             |
|--------------------------------|------------------------|-------------------------------------|-----------------------------|
| <b>28)</b> Sodium iodide       | <b>32)</b> $C_2H_4O_2$ | <b>36)</b> $Mg_3(PO_3)_2$           | <b>40)</b> strontium borate |
| <b>29)</b> $NH_4OH$            | <b>33)</b> $(NH_4)_2O$ | <b>37)</b> $P_4O_{10}$              | <b>41)</b> sulfur trioxide  |
| <b>30)</b> carbon tetrahydride | <b>34)</b> $N_2O_2$    | <b>38)</b> Phosphorus pentachloride | <b>42)</b> sodium sulfate   |
| <b>31)</b> $N_2O_4$            | <b>35)</b> $SO_2$      | <b>39)</b> dioxygen difluoride      |                             |

**Answer the following questions about bonding:**

- 43) How are ionic bonds, covalent bonds, and metallic bonds different?
- 44) Give one examples of a compound for each of the above bonds.

