

Chemistry IV - V Practice Quest /25

This practice test is designed to help you determine what concepts you DO know and more importantly what concepts you DO NOT know!

Go through the practice test **THREE** times:

(1) On your own (2) With your notes (3) With another student

1

2

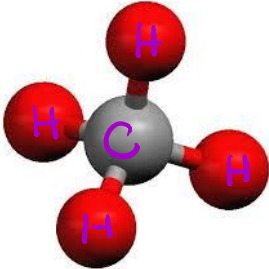
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Each time, if you cannot answer a question, draw a circle around it to identify that you should review this concept when preparing for the test.

- Elements are held together by chemical bonds. Which of the following is *not* an event that produces a chemical bond?
 - Two atoms come together and share an electron *Covalent*
 - One atom gains an electron from another atom *Ionic*
 - Two atoms come together to gain an electron *?*
 - One atom loses an electron to another atom *Ionic*
- Which of the following is the correct formula for iron (II) oxide?
 - Fe₂O
 - FeO
 - FeO₂
 - Fe₂O₂

Fe⁺² O⁻²
Fe_{1/2}O_{1/2} => FeO
- The following molecule has one carbon atom (light) and four hydrogen atoms (dark). The molecule shown is
 - A molecular compound
 - An ionic compound
 - A molecular atom
 - An ionic atom

CH₄


- The subscripts in ionic compound formulas
 - Identify the total number of atoms in the element
 - Identify the definite proportions of elements in the compound
 - Identify the types of elements in the compound
 - Identify the definite proportions of molecules in the element
- The roman numeral in a name represents
 - The number of molecules in the compound
 - The charge of the polyatomic ion
 - The charge of the multivalent ion
 - The charge of the compound
- Which of the following is a proper rule for naming ionic compounds?
 - The non-metal ion's name always ends with the suffix "-ide"
 - The chemical name of an ionic compound always has three parts
 - The second part of the chemical name is always a positive ion
 - The metal ion's name always ends with the suffix "-ide"

Short Answer

7. Draw Bohr models for the following (5 marks)

Before bonding: draw **atoms**

Mg O	O F F

After bonding: draw **compounds/molecules**

MgO	OF ₂
<p>Ionic / Covalent ? (circle one)</p>	<p>Ionic / Covalent ? (circle one)</p>

8. Complete the following table identifying the name, formula, or ion (4 marks)

Formula	Name	Positive Ion	Negative Ion
CaSO_4	Calcium sulphate	Ca^{2+}	SO_4^{-2}
KBr	Potassium bromide	K^+	Br^-
CuCl_2	Copper (II) chloride	Cu^{+2}	Cl^-

9. Name the following compounds (5 marks)

a. NaBr

Sodium bromide

b. $\text{Sc}(\text{OH})_3$

Scandium hydroxide

c. $\text{V}(\text{SO}_4)_2$

Vanadium (IV) sulfate

Multivalent ←

d. N_3Cl covalent!

Trinitrogen monochloride

e. CaCO_3

Calcium carbonate .

10. Write the formula for the following compounds (5 marks)

a. Silver phosphate

Ag_3PO_4

b. Sulfur tribromide

SBr_3

c. Tin (IV) sulfide

SnS_2

d. Titanium (IV) cyanide

$\text{Ti}(\text{CN})_4$

e. Potassium permanganate

KMnO_4