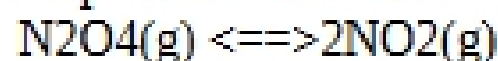


General Chemistry 1 Mid Term Revision Practice

1 Which subatomic particle has a negative charge?

- (1) proton (3) neutron
- (2) electron** (4) positron

2 Given the reaction system in a closed container at equilibrium and at a temperature of 298 K:



The measurable quantities of the gases at equilibrium must be

- (1) decreasing (3) equal
- (2) increasing **(4) constant**

2 Which statement best describes the nucleus of an aluminum atom?

- (1) It has a charge of +13 and is surrounded by a total of 10 electrons.
- (2) It has a charge of +13 and is surrounded by a total of 13 electrons.**
- (3) It has a charge of -13 and is surrounded by a total of 10 electrons.
- (4) It has a charge of -13 and is surrounded by a total of 13 electrons.

3 Which electron configuration represents an atom of aluminum in an excited state?

- (1) 2-7-4** (3) 2-8-3
- (2) 2-7-7 (4) 2-8-6

4 The atomic mass of an element is the weighted average of the

- (1) number of protons in the isotopes of that element
- (2) number of neutrons in the isotopes of that element
- (3) atomic numbers of the naturally occurring isotopes of that element
- (4) atomic masses of the naturally occurring isotopes of that element**

5 In which pair do the particles have approximately the same mass?

- (1) proton and electron
- (2) proton and neutron**
- (3) neutron and electron
- (4) neutron and beta particle

6 Two different samples decompose when heated. Only one of the samples is soluble

in water. Based on this information, these two samples are

- (1) both the same element
- (2) two different elements
- (3) both the same compound
- (4) **two different compounds**

7 The elements located in the lower left corner of the Periodic Table are classified as

- (1) **metals**
- (2) nonmetals
- (3) metalloids
- (4) noble gases

8 Which of these elements has the lowest melting point?

- (1) Li
- (2) Na
- (3) K
- (4) **Rb**

9 Which list consists of elements that have the most similar chemical properties?

- (1) Mg, Al, and Si
- (2) **Mg, Ca, and Ba**
- (3) K, Al, and Ni
- (4) K, Ca, and Ga

10 The correct chemical formula for iron(II) sulfide is

- (1) **FeS**
- (2) Fe₂S₃
- (3) FeSO₄
- (4) Fe₂(SO₄)₃

11 Which list consists of types of chemical formulas?

- (1) atoms, ions, molecules
- (2) metals, nonmetals, metalloids
- (3) **empirical, molecular, structural**
- (4) synthesis, decomposition, neutralization

12 Given the balanced equation:



This reaction is classified as

- (1) synthesis
- (2) decomposition
- (3) single replacement
- (4) **double replacement**

13. Given the balanced ionic equation:



Compared to the total charge of the reactants, the total charge of the products is

(1) less

(2) greater

(3) the same 3 the same, charge is conserved

14. Which isotope will spontaneously decay and emit particles with a charge of +2?

(1) ^{53}Fe (3) ^{198}Au

(2) ^{137}Cs (4) ^{220}Fr