Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Mock Test (Q3) - 2024

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. What is the electron configuration of the calcium?
a. $1s^2 2s^2 2p^6 3s^2 3p^6$
b. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$
c. $1s^2 2s^2 2p^6 3s^2 3p^5 4s^1$
d. $1s^2 2s^2 2p^6 3s^2$

____ 2. The electron configuration of a fluoride ion, F^-, is ____.
a. $1s^2 2s^2 2p^5$
b. the same as that of a neon atom
c. $1s^2 2s^2 2p^6 3s^1$
d. the same as that of a potassium ion

____ 3. What is the name of the ionic compound formed from lithium and bromine?
a. lithium bromine
b. lithium bromide
c. lithium bromium
d. lithium bromate

____ 4. What is the formula for sodium sulfate?
a. $NaSO_4$
b. Na_2SO_4
c. $Na(SO_4)_2$
d. $Na_2(SO_4)_2$

____ 5. What is the formula for potassium sulfide?
a. KS
b. K_2S
c. KS_2
d. K_2S_2

____ 6. How many moles of tungsten atoms are in 4.8×10^{25} atoms of tungsten?
a. 8.0×10^2 moles
b. 8.0×10^1 moles
c. 1.3×10^{-1} moles
d. 1.3×10^{-2} moles

____ 7. What is the molar mass of $AuCl_3$?
a. 96 g
b. 130 g
c. 232.5 g
d. 303.6 g

____ 8. What is the volume, in liters, of 0.500 mol of C_3H_8 gas at STP?
a. 0.0335 L
b. 11.2 L
c. 16.8 L
d. 22.4 L

____ 9. What are the coefficients that will balance the skeleton equation below?
$AlCl_3 + NaOH \rightarrow Al(OH)_3 + NaCl$
a. 1, 3, 1, 3
b. 3, 1, 3, 1
c. 1, 1, 1, 3
d. 1, 3, 3, 1

____ 10. When potassium hydroxide and barium chloride react, potassium chloride and barium hydroxide are formed. The balanced equation for this reaction is ____.

a. $KH + BaCl \rightarrow KCl + BaH$
c. $2KOH + BaCl_2 \rightarrow 2KCl + Ba(OH)_2$
b. $KOH + BaCl \rightarrow KCl + BaOH$
d. $KOH + BaCl_2 \rightarrow KCl_2 + BaOH$

____ 11. Which of the following correctly represents an ion pair and the ionic compound the ions form?

a. Ca^{2+}, F^{-}; CaF_2
c. Ba^{2+}, O^{2-}; Ba_2O_2
b. Na^{+}, Cl^{-}; $NaCl_2$
d. Pb^{4+}, O^{2-}; Pb_2O_4

____ 12. Select the correct formula for sulfur hexafluoride.

a. S_2F_6
c. F_6S_2
b. F_6SO_3
d. SF_6

____ 13. Which of the following elements has the smallest atomic radius?

a. sulfur
c. selenium
b. chlorine
d. bromine

____ 14. Matter can be divided into

a. solutions and colloid
c. solids and liquids
b. homogeneous and heterogeneous mixtures
d. Pure substances and mixtures

____ 15. Chemical changes can occur when there is a change in the ____.

a. states of matter
c. presence of a new chemical
b. density
d. mass