

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Which of the following of Dalton's proposals is still valid? 1) _____
A) All atoms of an element are identical.
B) Atoms are indivisible.
C) Atoms are indestructible.
D) all of the above
E) none of the above
- 2) Using atomic notation, indicate the isotope having 11 p⁺, 12 n⁰, and 11 e⁻. 2) _____
A) ${}_{11}^{12}\text{Na}$ B) ${}_{11}^{23}\text{Na}$ C) ${}_{11}^{12}\text{Mg}$ D) ${}_{12}^{23}\text{Mg}$ E) ${}_{12}^{23}\text{Na}$
- 3) How many neutrons are in the nucleus of an atom of silver-107? 3) _____
A) 47
B) 60
C) 154
D) 107
E) none of the above
- 4) Given that the only naturally occurring isotope of sodium is ${}^{23}\text{Na}$, what is its isotopic mass? (Hint: Refer to the Periodic Table.) 4) _____
A) 12.00 amu B) 34.99 amu C) 11.99 amu D) 22.99 amu E) 11.00 amu
- 5) Element X has two natural isotopes: X-6 (6.015 amu) and X-7 (7.016 amu). Calculate the atomic mass of element X given the abundance of X-7 is 92.5%. 5) _____
A) 6.94 amu B) 12.5 amu C) 6.50 amu D) 6.52 amu E) 6.09 amu
- 6) Boron occurs naturally as ${}^{10}\text{B}$ and ${}^{11}\text{B}$. Which isotope is more abundant? 6) _____
(Hint: Refer to the Periodic Table.)
A) boron-10
B) boron-5
C) boron-11
D) boron-6
E) none of the above
- 7) Which of the following colors of light has the highest frequency? 7) _____
A) yellow
B) red
C) violet
D) green
E) All colors have the same frequency.

- 8) Which of the following types of radiation has the highest energy? 8) _____
A) ultraviolet
B) X rays
C) visible
D) infrared
E) All radiation has the same energy.
- 9) Which of the following wavelengths of light is in the visible region of the radiant energy spectrum? 9) _____
A) 550 nm
B) 250 nm
C) 850 nm
D) all of the above
E) none of the above
- 10) How many photons of light are emitted when the electron in a hydrogen atom drops from energy level 4 to 2? 10) _____
A) 1
B) 2
C) 3
D) 4
E) none of the above
- 11) How many energy sublevels exist within the 3rd principal energy level? 11) _____
A) 1
B) 2
C) 3
D) 4
E) none of the above
- 12) What is the maximum number of electrons that can occupy an *s* energy sublevel? 12) _____
A) 14
B) 10
C) 2
D) 6
E) none of the above
- 13) What is the maximum number of electrons that can occupy a *d* energy sublevel? 13) _____
A) 14
B) 6
C) 10
D) 2
E) none of the above
- 14) Which electron sublevel follows the 3*d* sublevel according to increasing energy? 14) _____
A) 4*d* B) 3*s* C) 3*p* D) 4*p* E) 4*s*

- 15) What is the electron configuration for an atom of fluorine? 15) _____
A) $1s^2 2s^2 2p^5$
B) $1s^2 2s^2 2p^3$
C) $1s^2 2s^2 2p^6 3s^1$
D) $1s^2 2s^2 2p^6 3s^2 3p^5$
E) none of the above
- 16) What is the electron configuration for an atom of nickel? 16) _____
A) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 4p^8$
B) $1s^2 2s^2 2p^6 3s^2 3p^6 3d^8$
C) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^8$
D) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 4d^8$
E) none of the above
- 17) Which element has the following electron configuration: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^2$? 17) _____
A) Sr
B) Hf
C) Zr
D) Sn
E) none of the above
- 18) Which of the following orbitals has a spherical shape? 18) _____
A) $4p_x$
B) $4d_{xy}$
C) $4s$
D) all of the above
E) none of the above
- 19) What is the maximum number of electrons in a $4s$ orbital? 19) _____
A) 1
B) 6
C) 2
D) 4
E) none of the above
- 20) How many orbitals are in the $4s$ subshell? 20) _____
A) 4
B) 3
C) 5
D) 1
E) none of the above
- 21) How many orbitals are in the $4p$ subshell? 21) _____
A) 4
B) 1
C) 5
D) 3
E) none of the above

- 22) Which of the following statements is true? 22) _____
A) Dalton proposed a "particle model" of matter.
B) Bohr proposed a "planetary model" of the atom.
C) Thomson proposed a "plum pudding model" of the atom.
D) Rutherford proposed a "nuclear model" of the atom.
E) all of the above.
- 23) An atom can be described by the analogy "like a marble in the Dallas Cowboys Stadium." If the stadium represents an atom, what does the *marble* represent? 23) _____
A) neutron B) proton C) electron D) marble E) nucleus
- 24) Which of the following is an alkaline earth metal? 24) _____
A) Ca
B) Ba
C) Mg
D) all of the above
E) none of the above
- 25) Which of the following is a noble gas? 25) _____
A) Xe
B) He
C) Ar
D) all of the above
E) none of the above
- 26) Which of the following is a general trend in the periodic table for the metallic character of the elements? 26) _____
A) decreases from left to right, increases from bottom to top
B) increases from left to right, decreases from bottom to top
C) increases from left to right, increases from bottom to top
D) decreases from left to right, decreases from bottom to top
E) none of the above
- 27) Which of the following is a general trend in the periodic table for the atomic radius of the elements? 27) _____
A) increases from left to right, decreases from bottom to top
B) decreases from left to right, decreases from bottom to top
C) increases from left to right, increases from bottom to top
D) decreases from left to right, increases from bottom to top
E) none of the above
- 28) Which of the following is a general trend from left to right in the periodic table of elements? 28) _____
A) atomic radius decreases; metallic character decreases
B) atomic radius decreases; metallic character increases
C) atomic radius increases; metallic character decreases
D) atomic radius increases; metallic character increases
E) none of the above
- 29) Which of the following elements has the most metallic character? 29) _____
A) Na B) Ca C) K D) Al E) Fe

- 30) Which of the following elements has the least metallic character? 30) _____
 A) S B) O C) P D) C E) N
- 31) Which of the following elements has the largest atomic radius? 31) _____
 A) Na B) Mg C) Li D) B E) Be
- 32) Which of the following elements has the smallest atomic radius? 32) _____
 A) Cl B) F C) Br D) O E) S
- 33) Which of the following has chemical properties most similar to sodium? 33) _____
 A) Fe B) K C) He D) Mg E) B
- 34) Which of the following does *not* have chemical properties similar to Mg? 34) _____
 A) beryllium
 B) barium
 C) strontium
 D) manganese
 E) calcium
- 35) Given the chemical formulas for Al_2O_3 , SiO_2 , and P_2O_5 , predict the formula for arsenic oxide, As_xO_y ? 35) _____
 A) AsO B) As_2O_3 C) AsO_2 D) As_3O_2 E) As_2O_5
- 36) Given the chemical formulas CH_4 , NH_3 , and H_2O , predict the formula for silane, Si_xH_y ? 36) _____
 A) SiH_3 B) H_2Si C) SiH D) SiH_4 E) SiH_2
- 37) Which energy sublevel is being filled by the elements K to Ca? 37) _____
 A) $4s$ B) $3d$ C) $4p$ D) $4f$ E) $4d$
- 38) Which energy sublevel is being filled by the elements Rb to Sr? 38) _____
 A) $5s$ B) $5p$ C) $4d$ D) $5d$ E) $5f$
- 39) Which energy sublevel is being filled by the elements Y to Cd? 39) _____
 A) $5f$ B) $5d$ C) $5s$ D) $4d$ E) $5p$
- 40) What is the core notation for the electron configuration of a potassium atom? 40) _____
 A) $[\text{Ar}] 4p^1$ B) $[\text{Ar}]$ C) $[\text{Kr}]$ D) $[\text{Ar}] 4s^1$ E) $[\text{Ar}] 4d^1$
- 41) What is the core notation for the electron configuration of an iodine atom? 41) _____
 A) $[\text{Kr}] 5s^2 4d^{10} 5p^5$
 B) $[\text{Kr}]$
 C) $[\text{Xe}]$
 D) $[\text{Kr}] 5s^2 4p^5$
 E) $[\text{Kr}] 5s^2 4d^{10} 5d^6$
- 42) Predict the number of valence electrons for a Group IIA/2 element. 42) _____
 A) 6 B) 3 C) 1 D) 8 E) 2

- 43) Predict the number of valence electrons for a Group VIA/16 element. 43) _____
 A) 2 B) 8 C) 4 D) 16 E) 6
- 44) Predict the number of valence electrons for a Group VIIA/17 element. 44) _____
 A) 1 B) 17 C) 2 D) 3 E) 7
- 45) Which of the following is the electron dot formula for an atom of potassium? 45) _____
 (a) $\text{K}\cdot$ (b) $\overset{\cdot}{\underset{\cdot}{\text{K}}}$ (c) $\cdot\overset{\cdot}{\underset{\cdot}{\text{K}}}\cdot$ (d) $:\overset{\cdot}{\underset{\cdot}{\text{K}}}:$ (e) $:\overset{\cdot}{\underset{\cdot}{\text{K}}}:$
 A) (a) B) (b) C) (c) D) (d) E) (e)
- 46) Which of the following is the electron dot formula for an atom of strontium? 46) _____
 (a) $\text{Sr}\cdot$ (b) $\overset{\cdot}{\underset{\cdot}{\text{Sr}}}$ (c) $\cdot\overset{\cdot}{\underset{\cdot}{\text{Sr}}}\cdot$ (d) $\cdot\overset{\cdot}{\underset{\cdot}{\text{Sr}}}\cdot$ (e) $:\overset{\cdot}{\underset{\cdot}{\text{Sr}}}:$
 A) (a) B) (b) C) (c) D) (d) E) (e)
- 47) Which of the following is the electron dot formula for an atom of nitrogen? 47) _____
 (a) $\text{N}\cdot$ (b) $\cdot\overset{\cdot}{\underset{\cdot}{\text{N}}}\cdot$ (c) $\cdot\overset{\cdot}{\underset{\cdot}{\text{N}}}\cdot$ (d) $:\overset{\cdot}{\underset{\cdot}{\text{N}}}\cdot$ (e) $:\overset{\cdot}{\underset{\cdot}{\text{N}}}:$
 A) (a) B) (b) C) (c) D) (d) E) (e)
- 48) Which of the following is the electron dot formula for an atom of oxygen? 48) _____
 (a) $\text{O}\cdot$ (b) $\overset{\cdot}{\underset{\cdot}{\text{O}}}$ (c) $\cdot\overset{\cdot}{\underset{\cdot}{\text{O}}}\cdot$ (d) $\cdot\overset{\cdot}{\underset{\cdot}{\text{O}}}\cdot$ (e) $:\overset{\cdot}{\underset{\cdot}{\text{O}}}:$
 A) (a) B) (b) C) (c) D) (d) E) (e)
- 49) Which of the following is the electron dot formula for an atom of neon? 49) _____
 (a) $\text{Ne}\cdot$ (b) $\cdot\overset{\cdot}{\underset{\cdot}{\text{Ne}}}\cdot$ (c) $\cdot\overset{\cdot}{\underset{\cdot}{\text{Ne}}}\cdot$ (d) $:\overset{\cdot}{\underset{\cdot}{\text{Ne}}}\cdot$ (e) $:\overset{\cdot}{\underset{\cdot}{\text{Ne}}}:$
 A) (a) B) (b) C) (c) D) (d) E) (e)
- 50) Which of the following is a general trend for the ionization energy of elements in the periodic table? 50) _____
 A) increases from left to right; decreases from bottom to top
 B) decreases from left to right; decreases from bottom to top
 C) increases from left to right; increases from bottom to top
 D) decreases from left to right; increases from bottom to top
 E) none of the above
- 51) Which of the following elements has the highest ionization energy? 51) _____
 A) K B) Cl C) Kr D) Ar E) Br
- 52) Which of the following groups has a predictable ionic charge of one negative? 52) _____
 A) Group VIIA/17
 B) Group IA/1
 C) Group IB/11
 D) Group VIIIA/18
 E) Group IIIA/13

- 53) What is the predicted ionic charge for a K ion? 53) _____
A) 1+
B) 2+
C) 2-
D) 1-
E) none of the above
- 54) What is the predicted ionic charge for a Sn ion? 54) _____
A) 4+
B) 3-
C) 4-
D) 3+
E) none of the above
- 55) What is the predicted ionic charge for a Bi ion? 55) _____
A) 4-
B) 2+
C) 4+
D) 2-
E) none of the above
- 56) Which of the following ions is isoelectronic with the noble gas argon? 56) _____
A) Ca^{2+}
B) Sc^+
C) V^{3+}
D) Na^+
E) none of the above
- 57) Which of the following ions is isoelectronic with the noble gas krypton? 57) _____
A) I^-
B) K^+
C) As^{3+}
D) Se^{2-}
E) none of the above
- 58) Which of the following ions is *not* isoelectronic with the noble gas krypton? 58) _____
A) Se^{2-} B) Zr^{4+} C) Br^- D) Ga^{3+} E) Sr^{2+}
- 59) Which of the following ions is *not* isoelectronic with the noble gas xenon? 59) _____
A) Te^{2-} B) Sb^{3+} C) I^- D) Cs^+ E) Ba^{2+}
- 60) What is the electron configuration using core notation for Ca^{2+} ? 60) _____
A) $[\text{Ar}]$
B) $[\text{Ar}] 4s^2 4d^8$
C) $[\text{Ar}] 4s^2$
D) $[\text{Ar}] 4d^{10}$
E) none of the above

- 61) What is the electron configuration using core notation for Co^{3+} ? 61) _____
A) $[\text{Ar}] 3d^6$
B) $[\text{Ar}] 4s^2 3d^7$
C) $[\text{Ar}] 4s^2 3d^4$
D) $[\text{Ar}]$
E) none of the above
- 62) What is the electron configuration for a fluoride ion, F^- ? 62) _____
A) $1s^2 2s^2 2p^5$
B) $1s^2 2s^2 2p^6$
C) $1s^2 2s^2 2p^4$
D) $1s^2 2s^2 2p^6 3s^1$
E) none of the above
- 63) What is the electron configuration for an oxide ion, O^{2-} ? 63) _____
A) $1s^2 2s^2 2p^6 3s^1$
B) $1s^2 2s^2 2p^4$
C) $1s^2 2s^2 2p^5$
D) $1s^2 2s^2 2p^6$
E) none of the above
- 64) What is the electron configuration for a nitride ion, N^{3-} ? 64) _____
A) $1s^2 2s^2 2p^4$
B) $1s^2 2s^2 2p^5$
C) $1s^2 2s^2 2p^3$
D) $1s^2 2s^2 2p^6$
E) none of the above
- 65) What is the electron configuration using core notation for I^- ? 65) _____
A) $[\text{Kr}] 5s^2 4d^{10} 5p^4$
B) $[\text{Kr}] 5s^2 5p^6$
C) $[\text{Xe}]$
D) $[\text{Kr}] 5s^2 4d^{10} 5p^5$
E) none of the above
- 66) Which of the following is a solid metal at normal conditions? 66) _____
A) Hg
B) Ge
C) Zn
D) all of the above
E) none of the above

- 67) Which of the following is a liquid metal at normal conditions? 67) _____
A) Zn
B) Ge
C) Hg
D) all of the above
E) none of the above
- 68) The compound Ag_2S is classified as which of the following? 68) _____
A) ternary ionic
B) binary ionic
C) ternary oxyacid
D) binary acid
E) binary molecular
- 69) The compound CaCO_3 is classified as which of the following? 69) _____
A) binary molecular
B) binary ionic
C) ternary oxyacid
D) binary acid
E) ternary ionic
- 70) The compound $\text{Co}(\text{NO}_3)_3$ is classified as which of the following? 70) _____
A) ternary oxyacid
B) binary ionic
C) binary acid
D) binary molecular
E) ternary ionic
- 71) The compound NH_3 is classified as which of the following? 71) _____
A) binary molecular
B) binary ionic
C) ternary oxyacid
D) ternary ionic
E) binary acid
- 72) Aqueous HCl is classified as which of the following? 72) _____
A) binary molecular
B) ternary oxyacid
C) binary ionic
D) binary acid
E) ternary ionic
- 73) Aqueous HClO_2 is classified as which of the following? 73) _____
A) ternary ionic
B) ternary oxyacid
C) binary ionic
D) binary molecular
E) binary acid

- 74) The Cu^{2+} ion is classified as which of the following? 74) _____
A) polyatomic cation
B) monoatomic anion
C) monoatomic cation
D) polyatomic anion
E) none of the above
- 75) The Cl^- ion is classified as which of the following? 75) _____
A) monoatomic cation
B) polyatomic cation
C) polyatomic anion
D) monoatomic anion
E) none of the above
- 76) The S^{2-} ion is classified as which of the following? 76) _____
A) monoatomic cation
B) monoatomic anion
C) polyatomic anion
D) polyatomic cation
E) none of the above
- 77) The selenate ion, SeO_3^{2-} , is classified as which of the following? 77) _____
A) polyatomic anion
B) polyatomic cation
C) monoatomic anion
D) monoatomic cation
E) none of the above
- 78) What is the systematic name for S^{2-} ? 78) _____
A) sulfate ion
B) sulfide ion
C) sulfite ion
D) sulfur ion
E) none of the above
- 79) What is the systematic name for N^{3-} ? 79) _____
A) nitride ion
B) nitrogen ion
C) nitrate ion
D) nitrite ion
E) none of the above
- 80) What is the chemical formula for the copper(I) ion? 80) _____
A) Co^{2+}
B) Cu^+
C) Cu^{2+}
D) Co^+
E) none of the above

- 81) What is the chemical formula for the iodide ion? 81) _____
- A) IO_2^-
 - B) IO^-
 - C) I^-
 - D) IO_3^-
 - E) none of the above
- 82) What is the systematic name for MnO_4^- ? 82) _____
- A) permanganate ion
 - B) manganate ion
 - C) manganese ion
 - D) manganite ion
 - E) none of the above
- 83) What is the systematic name for PO_4^{3-} ? 83) _____
- A) phosphate ion
 - B) phosphite ion
 - C) phosphide ion
 - D) tetraphosphate ion
 - E) none of the above
- 84) What is the chemical formula for the hypochlorite ion? 84) _____
- A) ClO_4^-
 - B) ClO^-
 - C) ClO_2^-
 - D) ClO_3^-
 - E) none of the above
- 85) What is the chemical formula for the sulfite ion? 85) _____
- A) SO_3^{2-}
 - B) SO_4^-
 - C) SO_4^{2-}
 - D) SO_3^-
 - E) none of the above
- 86) What is the chemical formula for the ternary compound composed of Na^+ and CO_3^{2-} ions? 86) _____
- A) Na_2CO_3
 - B) NaCO_3
 - C) $\text{Na}_2(\text{CO}_3)_2$
 - D) $\text{Na}(\text{CO}_3)_2$
 - E) none of the above

- 87) What is the chemical formula for the ternary compound composed of Co^{3+} and SO_4^{2-} ions? 87) _____
A) Co_2SO_4
B) $\text{Co}_2(\text{SO}_4)_3$
C) $\text{Co}_3(\text{SO}_4)_2$
D) CoSO_4
E) none of the above
- 88) What is the chemical formula for the ternary compound composed of Ag^+ and NO_3^- ions? 88) _____
A) Ag_3NO_3
B) $\text{Ag}_3(\text{NO}_3)_3$
C) $\text{Ag}(\text{NO}_3)_3$
D) AgNO_3
E) none of the above
- 89) What is the ionic charge for the copper ion in CuS ? 89) _____
A) 2+
B) zero
C) 3+
D) 1+
E) none of the above
- 90) What is the ionic charge for the lead ion in PbO_2 ? 90) _____
A) 4+
B) 2+
C) 1+
D) zero
E) none of the above
- 91) What is the chemical formula for aluminum sulfide? 91) _____
A) Al_3S_2
B) AlS
C) Al_2S
D) Al_2S_3
E) none of the above
- 92) What is the chemical formula for mercury(I) nitride? 92) _____
A) $(\text{Hg}_2)_2\text{N}_3$
B) Hg_3N_2
C) Hg_2N_3
D) $(\text{Hg}_2)_3\text{N}_2$
E) none of the above
- 93) What is the systematic name for CdI_2 ? 93) _____
A) cadmium(I) iodide
B) cadmium(II) iodide
C) cadmium iodide
D) cadmium diiodide
E) none of the above

- 94) What is the Stock system name for NiS? 94) _____
A) nickel(II) sulfate
B) nickel sulfide
C) nickel(II) sulfite
D) nickel(II) sulfide
E) none of the above
- 95) What is the Latin system name for FeO? 95) _____
A) ferrous oxide
B) iron(III) oxide
C) iron(II) oxide
D) ferric oxide
E) none of the above
- 96) Predict the chemical formula for sodium sulfide, given the formula of lithium oxide, Li₂O. 96) _____
A) Na₂S₃
B) Na₂S
C) NaS
D) NaS₂
E) none of the above
- 97) Predict the chemical formula for cesium fluoride, given the formula of sodium chloride, NaCl. 97) _____
A) Cs₂F
B) CsF₂
C) Cs₂F₃
D) CsF
E) none of the above
- 98) What is the ionic charge for the chromium ion in Cr₂(SO₄)₃? 98) _____
A) zero
B) 1+
C) 2+
D) 3+
E) none of the above
- 99) What is the chemical formula for barium phosphate? 99) _____
A) Ba₂(PO₄)₃
B) BaPO₄
C) Ba₃(PO₄)₂
D) BaPO₃
E) none of the above

- 100) What is the chemical formula for tin(II) chlorate? 100) _____
A) $\text{Sn}(\text{ClO}_3)_4$
B) $\text{Sn}(\text{ClO}_3)_2$
C) $\text{Sn}(\text{ClO}_2)_4$
D) $\text{Sn}(\text{ClO}_2)_2$
E) none of the above
- 101) What is the systematic name for Na_2CO_3 ? 101) _____
A) sodium carbon trioxide
B) disodium carbonate
C) sodium carbonate
D) sodium tricarbonite
E) none of the above
- 102) What is the chemical formula for potassium cyanide? 102) _____
A) $\text{K}(\text{CN})_2$
B) K_3CN
C) KCN
D) K_2CN
E) none of the above
- 103) What is the systematic name for NH_4Cl ? 103) _____
A) tetraammonium chloride
B) ammonium tetrachloride
C) ammonium chloride
D) nitrogen tetrahydrogen chloride
E) none of the above
- 104) What is the chemical formula for laughing gas, dinitrogen oxide? 104) _____
A) N_2O_2
B) NO_2
C) NO
D) N_2O
E) none of the above
- 105) What is the chemical formula for iodine heptafluoride? 105) _____
A) I_2F_6
B) IF_7
C) IF_6
D) IF
E) none of the above
- 106) What is the chemical formula for dinitrogen trioxide? 106) _____
A) N_2O_5
B) N_2O
C) N_2O_4
D) N_2O_3
E) none of the above

- 107) What is the chemical formula for tetraphosphorus trisulfide (the flammable compound on match tips that causes ignition)? 107) _____
- A) P_3S_4
 - B) P_4S_3
 - C) PS_3
 - D) P_4S
 - E) none of the above
- 108) What is the chemical formula for hydroselenic acid? 108) _____
- A) $H_2Se(aq)$
 - B) $HSe(aq)$
 - C) $H_2SeO_3(aq)$
 - D) $HSeO_2(aq)$
 - E) none of the above
- 109) What is the systematic name for aqueous HF? 109) _____
- A) hydrogen fluoride
 - B) fluorous acid
 - C) hydrofluoric acid
 - D) fluoric acid
 - E) none of the above
- 110) What is the chemical formula for chlorous acid? 110) _____
- A) $HClO_2(aq)$
 - B) $HClO_3(aq)$
 - C) $HClO(aq)$
 - D) $HClO_4(aq)$
 - E) none of the above
- 111) What is the chemical formula for chloric acid? 111) _____
- A) $HClO_2(aq)$
 - B) $HClO(aq)$
 - C) $HClO_3(aq)$
 - D) $HClO_4(aq)$
 - E) none of the above
- 112) What is the systematic name for aqueous H_3PO_4 ? 112) _____
- A) phosphorous acid
 - B) hydrophosphoric acid
 - C) hydrophosphorous acid
 - D) phosphoric acid
 - E) none of the above
- 113) What is the chemical formula for hydrocyanic acid? 113) _____
- A) $HCNO(aq)$
 - B) $HN_3(aq)$
 - C) $H_3N(aq)$
 - D) $HCN(aq)$
 - E) none of the above

114) Which of the following compounds is named using an -ate suffix? 114) _____

- A) SO_2
- B) ZnSO_3
- C) NiCl_2
- D) KMnO_4
- E) none of the above

115) Which of the following acids is named: hydro + nonmetal stem + ic acid? 115) _____

- A) $\text{HBr}(aq)$
- B) $\text{HF}(aq)$
- C) $\text{H}_2\text{S}(aq)$
- D) all of the above
- E) none of the above

Answer Key

Testname: CHEM1305 PRCTICE QUESTION CH 4, 5, 6

- 1) E
- 2) B
- 3) B
- 4) D
- 5) A
- 6) C
- 7) C
- 8) B
- 9) A
- 10) A
- 11) C
- 12) C
- 13) C
- 14) D
- 15) A
- 16) C
- 17) D
- 18) C
- 19) C
- 20) D
- 21) D
- 22) E
- 23) E
- 24) D
- 25) D
- 26) D
- 27) B
- 28) A
- 29) C
- 30) B
- 31) A
- 32) B
- 33) B
- 34) D
- 35) E
- 36) D
- 37) A
- 38) A
- 39) D
- 40) D
- 41) A
- 42) E
- 43) A
- 44) E
- 45) A
- 46) B
- 47) C
- 48) D
- 49) E
- 50) C

Answer Key

Testname: CHEM1305 PRCTICE QUESTION CH 4, 5, 6

- 51) D
- 52) A
- 53) A
- 54) A
- 55) E
- 56) A
- 57) D
- 58) D
- 59) B
- 60) A
- 61) A
- 62) B
- 63) D
- 64) D
- 65) C
- 66) C
- 67) C
- 68) B
- 69) E
- 70) E
- 71) A
- 72) D
- 73) B
- 74) C
- 75) D
- 76) B
- 77) A
- 78) B
- 79) A
- 80) B
- 81) C
- 82) A
- 83) A
- 84) B
- 85) A
- 86) A
- 87) B
- 88) D
- 89) A
- 90) A
- 91) D
- 92) D
- 93) C
- 94) D
- 95) A
- 96) B
- 97) D
- 98) D
- 99) C
- 100) B

Answer Key

Testname: CHEM1305 PRCTICE QUESTION CH 4, 5, 6

- 101) C
- 102) C
- 103) C
- 104) D
- 105) B
- 106) D
- 107) B
- 108) A
- 109) C
- 110) A
- 111) C
- 112) D
- 113) D
- 114) D
- 115) D