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Chapter 02 - Elements and Compounds

1. A certain element consists of two stable isotopes. The first has a mass of 14.0031 amu and a percent natural abundance of 99.63%. The second has a mass of 15.001 amu and a percent natural abundance of 0.37%. What is the atomic mass of the element?

a. 13.95 amu
b. 14.00 amu
c. 14.01 amu
d. 14.50 amu
e. 19.50 amu

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
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2. The element nitrogen has two stable isotopes, nitrogen-14 with a mass of 14.00 amu and nitrogen-15 with a mass of 15.00 amu. From the atomic mass of nitrogen on the Periodic Table, one can conclude that:

a. both isotopes have the same percent natural abundance
b. there is an isotope of nitrogen with an atomic mass of 14.01 amu
c. nitrogen-14 has the highest percent natural abundance
d. nitrogen-15 has the highest percent natural abundance

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
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3. The element indium has two stable isotopes, indium-113 with an atomic mass of 112.9 amu and indium-115 with an atomic mass of 114.9 amu. From the atomic weight found on the periodic table for indium, one can conclude that:

a. Indium-113 has the highest percent natural abundance
b. Indium-115 has the highest percent natural abundance
c. Both isotopes have the same percent natural abundance
d. There is an isotope of indium with an atomic mass of 114.8 amu

ANSWER: b
POINTS: 1
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4. What is the identity of the transition element in the fourth Row and Group 6B?

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a. Mo
b. Cr
c. W
d. Hf
e. Zr

ANSWER: b
POINTS: 1
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5. What is the name of the symbol of the element that is in Group 3A and Period 5?

a. Al
b. In
c. Nb
d. Tl
e. Y

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
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6. What is the name of the alkali metal that is in Period 5?

a. iodine
b. rubidium
c. strontium
d. xenon
e. yttrium

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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7. What is the name of the halogen that is in Period 4?

a. bromine
b. calcium
c. iodine

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d. krypton
e. potassium

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
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8. What is the name of the halogen in Period 5?
a. Astatine
b. Iodine
c. Strontium
d. Radon
e. Caesium

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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9. The symbol and atomic number of the heaviest alkaline earth metal is:
a. Ra and 226
b. Fr and 223
c. Ra and 88
d. Fr and 87

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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10. What is the identity of the alkaline earth element in the 6^{th} Period?
a. Cs
b. Ba
c. Am
d. At
e. Rn

ANSWER: b
POINTS: 1

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11. What is the identity of the nonmetal in Group 4A?
    a. C
    b. Si
    c. Ge
    d. Sn
    e. Pb

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
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12. What is the common name of the group that has a one of its members the element which contains 35 protons in its nucleus?
    a. Alkali metals
    b. Alkaline earth metals
    c. Transition metals
    d. Halogens
    e. Noble gases

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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13. The symbol and atomic number of the lightest semi-metal in Group 4A are:
    a. C and 6
    b. Si and 14
    c. Ge and 32
    d. Sn and 50

ANSWER: b
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14. How many protons, neutrons and electrons are there in: $^{6}_{3}\mathrm{Li}$?

a. 3p, 3n, 3e–
b. 3p, 6n, 3e–
c. 6p, 3n, 6e–
d. 6p, 3n, 3e–
e. 3p, 6n, 6e–

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
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15. How many protons, neutrons and electrons are there in a neutral atom of the isotope of **silver** named silver-109?

a. 47p, 109n, 47e–
b. 109p, 47n, 109e–
c. 62p, 47n, 62e–
d. 47p, 62n, 47e–
e. 62p, 109n, 62e–

ANSWER: d
POINTS: 1
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HAS VARIABLES: False
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16. What is the symbol for an ion of an element which has 12 protons and 10 electrons?

a. Mg^{2+}
b. Mg^{2-}
c. Ne^{2+}
d. Ne^{2-}
e. Ti^{2+}

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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17. How many protons, neutrons, and electrons are in the atom represented by: $^{139}_{57}\mathrm{La}^{+}$

a. 57p, 82n, 57e–

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b. 57p, 82n, 58e–
c. 57p, 139n, 56e–
d. 57p, 139n, 58e–
e. 57p, 82n, 56e–

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
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18. An ion from a given element has 20 protons, 20 neutrons, and 18 electrons. Which of the following is the correct atomic notation for this ion?

a. $^{40}_{20}Ca^{2+}$
b. $^{38}_{18}Ar^{2-}$
c. $^{58}_{40}Zr^{2+}$
d. $^{38}_{20}Ca$
e. $^{38}_{18}Ar^{2+}$

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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19. Which of the following pairs have the same number of neutrons?

a. $^{16}_{8}O$ and $^{17}_{8}O$
b. $^{40}_{18}Ar$ and $^{41}_{19}K$
c. $^{60}_{27}Co$ and $^{60}_{28}Ni$
d. $^{3}_{1}H$ and $^{3}_{2}He$
e. $^{84}_{36}Kr$ and $^{84}_{37}Kr$

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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20. How many protons, neutrons, and electrons are in 1 atom of $^{69}_{31}Ga^{2+}$ ion?

a. 31p, 31n, 33e–

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b. 33p, 38n, 31e–
c. 31p, 38n, 29e–
d. 29p, 38n, 31e–
e. 31p, 31n, 29e–

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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21. How many protons and electrons does the most stable ion for calcium have?

# protons	# electrons
a. 20p	22e–
b. 22p	20e–
c. 20p	18e–
d. 20p	19e–
e. 20p	21e–

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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22. Which of the following is a stable ion of Mg?

a. Mg^{2+}
b. Mg^{+}
c. Mn^{2+}
d. Mn^{+}
e. Cannot tell – it has a variable charge

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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23. What is the name of the compound with the chemical formula $CaCrO_4$?

a. calcium chromide
b. calcium chromate
c. calcium(I) chromate

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d. calcium(II) chromate
e. calcium chromium oxide

ANSWER: b
POINTS: 1
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24. What is the correct systematic name for Na_2SO_3?
a. sodium sulfate
b. sodium sulfite
c. sodium(III) sulfate
d. disodium trisulfide
e. disodium monosulfate

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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25. What is the name of the compound with the formula $CaCl_2$?
a. calcium chloride
b. calcium(III) chloride
c. calcium chlorate
d. calcium(II) chlorate
e. calcium dichloride

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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26. What is the name of the compound with the formula Cr_2S_3?
a. chromium sulfide
b. chromium(II) sulfide
c. chromium(III) sulfite
d. chromium sulfate
e. dichromium trisulfide

ANSWER: c

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POINTS: 1
QUESTION TYPE: Multiple Choice
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27. What is the formula for the compound which forms between the ammonium ion and bromine?

a. NH_3Br
b. NH_4Br
c. NH_3Br_2
d. NH_4Br_2
e. $(NH_4)_2Br$

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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28. What is the formula for the compound aluminum acetate?

a. Al_2Ac_3
b. $AlAc_3$
c. $Al_2(C_2H_3O_2)_3$
d. $Al(C_2H_3O_2)_3$
e. $Al(C_2H_2O_3)_3$

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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29. What is the correct formula for lead(IV) oxide?

a. Pb_2O_4
b. Pb_4O_2
c. PbO
d. PbO_2
e. Pb_2O

ANSWER: d
POINTS: 1

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30. What is the correct formula for ammonium phosphide?

a. NH_4P
b. NH_4P_3
c. $(NH_4)_3P$
d. $(NH_4)_3P_2$
e. $(NH_4)_2P_3$

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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31. What is the formula for the compound copper(I) carbonate?

a. $CuC_2H_3O_2$
b. $Cu_2C_2H_3O_2$
c. $CuCO_3$
d. Cu_2CO_3
e. $Cu(CO_3)_2$

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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32. Which of the following pairs is incorrect?

a. $CaCl_2$, calcium chloride
b. $Fe(OH)_3$, iron(III) hydroxide
c. $KMnO_4$, potassium permanganate
d. $LiCr_2O_7$, lithium dichromate
e. CCl_4, carbon tetrachloride

ANSWER: d
POINTS: 1

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33. What is the name of the compound with the formula AlF_3?
    a. aluminum fluoride
    b. fluoroaluminate
    c. cryolite
    d. aluminum(III) trifluoride
    e. monoaluminum trifluoride

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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34. What is the chemical formula for the compound potassium bromide?
    a. PBr
    b. PBr_3
    c. KBr
    d. KBr_3
    e. $PBrO_3$

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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35. What is the chemical formula for the compound magnesium phosphate?
    a. Mg_3P_2
    b. $MgPO_3$
    c. $Mg_3(PO_3)_2$
    d. Mg_3PO_4
    e. $Mg_3(PO_4)_2$

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False

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36. What is the correct formula for barium hydroxide?
    a. BaOH
    b. $Ba(OH)_2$
    c. Ba_2OH
    d. $Ba_2(OH)_3$
    e. $Ba_3(OH)_2$

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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37. What is the name of the compound with the formula PI_3?
    a. phosphorus tetraiodide
    b. potassium iodide
    c. phosphorus(II) iodide
    d. potassium(III) iodide
    e. phosphorus triiodide

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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38. What is the name of the compound with the chemical formula CF_4?
    a. carbon fluorite
    b. carbon fluorate
    c. carbon(V) fluoride
    d. carbon tetrafluoride
    e. monocarbon tetrafluoride

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
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39. What is the correct systematic name for ICl_5?

a. iodine chloride
b. iodine heptachloride
c. iodine pentachloride
d. monoiodine heptachloride
e. monoiodine pentachloride

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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40. Give the name of the molecular compound and the name of the aqueous solution for the binary compound HF:

a. hydrogen fluoride, fluoric acid
b. hydrogen fluoride, hydrofluoric acid
c. hydrogen monofluoride, hydrofluoric acid
d. hydrogen monofluoride, fluoric acid
e. hydrogen monofluoride, fluorous acid

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
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41. All of the following are in aqueous solution. Which is incorrectly named?

a. H_3PO_4, phosphoric acid
b. HCN, cyanic acid
c. H_2SO_3, sulfurous acid
d. $HMnO_4$, permanganic acid
e. HNO_2, nitrous acid

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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42. What is the name for the compound with the formula HF?

a. fluoric acid

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b. fluorous acid
c. hydrofluoric acid
d. hydrofluorous acid
e. hydrogen monofluoride

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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43. What is the name of the compound with the formula HNO_2?

a. nitric acid
b. nitrous acid
c. hydronitric acid
d. hydronitrous acid
e. hydrogen mononitrogen dioxide

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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44. What is the chemical formula for nitric acid?

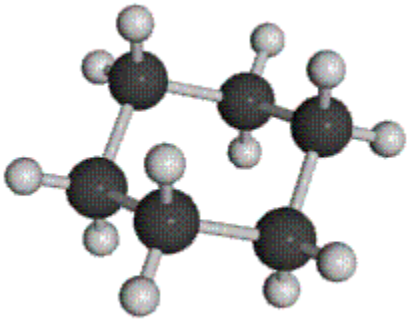
a. HNO_2
b. HNO_3
c. HNO_4
d. H_2NO_3
e. H_2NO_2

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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45. What are the empirical and molecular formulas for the following compound?
(C = dark atoms, H = light atoms)

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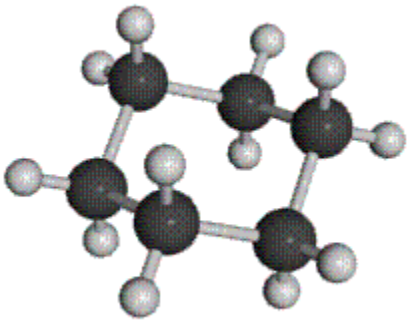
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	Molecular	Empirical
a.	C_6H_6	CH
b.	C_6H_{12}	CH_2
c.	CH	C_6H_6
d.	CH_2	C_6H_{12}

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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46. What type of compound is depicted below?



a. Binary acid
b. Binary ionic
c. Covalent - molecular
d. Covalent - network
e. Ternary ionic

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice

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47. The nucleus of a ^{191}Ir nuclide contains
    a. 191 neutrons and 268 electrons.
    b. 77 protons and 191 neutrons.
    c. 191 protons and 114 electrons.
    d. 191 protons, 77 neutrons, and 191 electrons.
    e. 77 protons and 114 neutrons.

ANSWER: e
POINTS: 1
REFERENCES: 2.1.1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
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48. Which combination of protons, neutrons, and electrons correctly represents a neutral ^{57}Fe atom?
    a. 26 protons, 31 neutrons, 57 electrons
    b. 26 protons, 31 neutrons, 31 electrons
    c. 26 protons, 31 neutrons, 26 electrons
    d. 57 protons, 26 neutrons, 57 electrons
    e. 57 protons, 26 neutrons, 26 electrons

ANSWER: c
POINTS: 1
REFERENCES: 2.1.1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
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49. Naturally occurring element X exists in three isotopic forms: X-28 (27.975 amu, 92.21% abundance), X-29 (28.976 amu, 4.70% abundance), and X-30 (29.974 amu, 3.09% abundance). Calculate the atomic weight of X.
    a. 29.08 amu
    b. 28.08 amu
    c. 35.29 amu
    d. 86.93 amu
    e. 25.80 amu

ANSWER: b
POINTS: 1
REFERENCES: 2.1.2

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50. The chemical name for the binary, non-ionic molecule with the formula NF_3 is
    a. nitrogen trifluoride.
    b. mononitrogen fluoride.
    c. nitride trifluoride.
    d. nitrogen trifluorine.
    e. mononitrogen trifluorine.

ANSWER: a
POINTS: 1
REFERENCES: 2.3.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
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51. The formula for chloric acid is
    a. $HClO_2$
    b. HClO
    c. HCl
    d. $HClO_4$
    e. $HClO_3$

ANSWER: e
POINTS: 1
REFERENCES: 2.3.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
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52. As an ion, sodium has _____ electrons.
    a. 22
    b. 14
    c. 11
    d. 27
    e. 10

ANSWER: e
POINTS: 1
REFERENCES: 2.4.1

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53. What is the correct formula for an ionic compound that contains magnesium ions and phosphide ions?
    a. MgP
    b. MgP_2
    c. Mg_3P_2
    d. $Mg_3(PO_4)_2$
    e. Mg_2P_3

ANSWER: c
POINTS: 1
REFERENCES: 2.4.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
DATE CREATED: 3/5/2014 6:49 PM
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54. The formula for aluminum bromide is
    a. AlB.
    b. AlBr.
    c. Al_2Br_3.
    d. $AlBr_2$.
    e. $AlBr_3$.

ANSWER: e
POINTS: 1
REFERENCES: 2.4.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
DATE MODIFIED: 12/12/2016 6:53 AM

55. The formula for copper(II) phosphate is
    a. $Co_3(PO_4)_2$.
    b. $CuPO_4$.
    c. $Co_2(PO_4)_3$.
    d. $Cu_2(PO_4)_3$.
    e. $Cu_3(PO_4)_2$.

ANSWER: e
POINTS: 1

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REFERENCES: 2.4.3
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
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56. Which of the following statements is true about the compound $BaCl_2$?

a. It is composed of one Ba atom and one Cl_2 molecule.
b. It is composed of half Ba atom and three Cl atoms.
c. It is composed of one Ba^{2+} ion and one Cl_2^{2-} ion.
d. It is composed of one $BaCl_2$ molecule.
e. It is composed of one Ba^{2+} ion and two Cl^- ions.

ANSWER: e
POINTS: 1
REFERENCES: 2.4.4
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
DATE MODIFIED: 1/18/2017 5:05 AM

57. The name of the SO_4^{2-} ion is

a. persulfate.
b. thiosulfite.
c. sulfite.
d. sulfate.
e. sulfide.

ANSWER: d
POINTS: 1
REFERENCES: 2.4.3
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
DATE MODIFIED: 1/12/2017 2:29 AM

58. Which group of three elements contains a nonmetal, a metal, and a metalloid?

a. H, Zn, I
b. Zn, I, Br
c. Zn, Cu, Si
d. Cu, Zn, I
e. I, Zn, Si

ANSWER: e

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POINTS: 1
QUESTION TYPE: Multiple Choice
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59. Which pair of elements would you expect to exhibit the greatest similarity in their physical and chemical properties?

a. K and Ca
b. Ga and Ge
c. Cl and Br
d. Cs and Ba
e. Be and Li

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
DATE MODIFIED: 12/12/2016 7:00 AM

60. The correct name for the compound P_2O_3 is

a. phosphorus oxide.
b. diphosphorus trioxide.
c. diphosphorus oxide.
d. diphosphide trioxide.
e. phosphide trioxide.

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
DATE MODIFIED: 1/18/2017 5:10 AM

61. The formula for bromic acid is?

a. $HBrO_4$
b. $HBrO_2$
c. HBrO
d. HBr
e. $HBrO_3$

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice

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HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
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62. What is the correct formula for copper(II) nitride?

a. Cu_3N
b. CuN
c. Cu_3N_2
d. CuN_2
e. Cu_2N_3

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
DATE MODIFIED: 12/12/2016 7:09 AM

63. Which of the following gives the correct numbers of protons, neutrons, and electrons in a neutral atom of ^{110}Ag?

a. 47 protons, 63 neutrons, 47 electrons
b. 110 protons, 47 neutrons, 110 electrons
c. 110 protons, 110 neutrons, 47 electrons
d. 63 protons, 63 neutrons, 47 electrons
e. 47 protons, 47 neutrons, 47 electrons

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
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64. An element has three naturally occurring isotopes with the following abundances and masses:

abundance	mass (amu)
77.66%	35.23
8.12%	36.17
15.96%	37.03

Determine the atomic mass of the element.

a. 35.38 amu
b. 109.7 amu
c. 36.17 amu
d. 3538 amu

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e. none of the above

ANSWER: a
POINTS: 1
REFERENCES: 2.1.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
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65. Which species below is the nitrite ion?

a. N_3^-

b. NO_2^-

c. NH_4^+

d. NO_3^-

e. N^{3-}

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
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66. What is the correct formula for copper(II) nitride?

a. CuN_2

b. Cu_3N

c. CuN

d. Cu_2N_3

e. Cu_3N_2

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
DATE CREATED: 3/5/2014 6:49 PM
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67. The main difference between a proton and a neutron is:

a. a proton has considerably more mass than a neutron.

b. a proton is charged, a neutron is not.

c. a neutron is much larger than a proton.

d. a neutron is located in the nucleus of an atom, a proton is not.

e. a proton is much larger than a neutron.

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ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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68. What is the atomic symbol for an element with 39 protons and 50 neutrons?

a. $^{89}_{11}\mathrm{Na}$
b. $^{50}_{39}\mathrm{Y}$
c. $^{89}_{39}\mathrm{Y}$
d. $^{89}_{50}\mathrm{Sn}$
e. $^{227}_{89}\mathrm{Ac}$

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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69. What is the identity of $^{58}_{28}\mathrm{X}$?

a. Ni
b. Zn
c. Rn
d. Ce
e. Pd

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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70. A specially prepared sample of nitrogen contains 30% ^{14}N (mass = 14.00 u) and 70% ^{15}N (mass = 15.00 u). What is the atomic mass of the nitrogen in this sample?

a. 14.00
b. 14.30
c. 14.50

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d. 14.70
e. 15.00

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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71. Which element listed below is not classified as a lanthanide or actinide?
a. Ce
b. Sm
c. U
d. Fr
e. all are lanthanides or actinides

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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72. In which group of the following groups of the periodic table are all the elements nonmetals?
a. 2A
b. 3A
c. 5A
d. 6A
e. 7A

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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73. Which of the following sets of elements would be expected to have very similar chemical properties for all elements?

Br, Cl, Co, Cu, F, Fe, Ni, S, Zn
a. F, Cl, S, Br
b. F, Cl, Br
c. Fe, Co, Ni, Cu, Zn
d. Fe, Ni, Zn

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e. Co, Cu, Zn

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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74. $C_2H_2F_4$ is the formula for two possible molecules. $C_2H_2F_4$ is an example of a(n)
a. structural formula.
b. empirical formula.
c. condensed formula.
d. space-filling model.
e. molecular formula.

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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75. What is the correct name for the compound with a formula of P_2O_5?
a. Phosphorous(II) oxide
b. Phosphorous(V) oxide
c. Diphosphorous Pentoxide
d. Phosphate
e. Phosphorous oxide

ANSWER: c
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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76. The systematic name of the compound H_2SO_3 is
a. sulfurous acid
b. sulfuric acid
c. hydrosulfuric acid
d. dihydrogen sulfite
e. none of these

ANSWER: a
POINTS: 1

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77. Which element is most likely to form a 2– ion?
    a. K
    b. Mg
    c. P
    d. Br
    e. S

ANSWER: e
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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78. The species written as S^{2-} has:
    a. 16 protons and 18 electrons.
    b. 18 protons and 16 electrons.
    c. 16 protons and 14 electrons.
    d. 18 protons and 20 electrons.
    e. none of these.

ANSWER: a
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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79. The correct formula of an ionic compound made up of K and O is:
    a. KO
    b. K_2O
    c. K_2O_3
    d. K_3O
    e. none of these

ANSWER: b
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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80. What is the systematic name of the ionic compound with the formula $Cu(NO_3)_2$?

a. Copper nitrite
b. Copper(I) nitrate
c. Copper nitride
d. Copper(II) nitrate
e. Copper(I) nitrite

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
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