

Naming Exam Fluency 2

Chemistry

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

51) There is very little of the element astatine (symbol = At) on earth. If astatine formed an ion, it would most likely have the charge of:

- A) 2- B) 1-
C) 1+ D) 2+

52) What is the chemical formula for strontium hydroxide?

- A) SrOH₂ B) SrH₂
C) SrOH D) Sr(OH)₂

53) What is the systematic name for NH₄⁺?

- A) ammonium ion
B) nitrite ion
C) nitrate ion
D) ammonia ion

54) Which of the following is an acid?

- A) H₃PO₄
B) NH₄Cl
C) Ca(C₂H₃O₂)₂
D) MgSO₄

55) A group of covalently bonded atoms that has an overall electrical charge is called a(n):

- A) cation
B) polyatomic ion
C) anion
D) ionic compound

56) Aqueous HCl is classified as which of the following?

- A) binary molecular
B) binary ionic
C) binary acid
D) ternary ionic

Name _____

57) What is the chemical name of the compound whose formula is MgSO₄?

- A) magnesium sulfur tetraoxide
B) magnesium sulfate
C) magnesium sulfide
D) magnesium sulfite

58) Which of the following pairs will form *covalent* bonds?

- A) K, N B) S, O
C) Fe, Br D) Ca, Cl

59) An ionic compound

- A) has a net charge of zero.
B) has a net positive charge.
C) has a net negative charge.
D) contains only cations.
E) contains only anions.

60) The correct formula for dinitrogen trioxide is _____.

- A) N₂O₃
B) NO₃
C) N₃O₂
D) N₂O
E) N₂O₂

61) Write the name for Ca₃(PO₄)₂.

- A) tricalcium phosphorustetraoxide
B) calcium phosphate
C) calcium (III) phosphate
D) calcium (II) phosphate

62) Which compound contains only covalent bonds?

- A) Ca₃(PO₄)₂ B) NO₂
C) NaCl D) NH₄OH

- 63) What is the charge on the Fe ions in Fe_2O_3 ?
- A) 1+ B) 2-
C) 2+ D) 3+
- 64) The name of the compound BF_3 is :
- A) borofluoride
B) boron trifluoride
C) monoboronfluoride
D) monoboron trifluoride
E) boron fluoride
- 65) Determine the name for P_4O_{10} .
- A) phosphorus (II) oxide
B) phosphorus oxide
C) diphosphorus pentoxide
D) tetraphosphorus decoxide
E) phosphorus (IV) oxide
- 66) Determine the name for aqueous HBr .
- A) hydrobromous acid
B) hydrogen bromate
C) bromic acid
D) hydrobromic acid
- 67) Ionic compounds often contain:
- A) neither metallic nor nonmetallic elements
B) metallic elements only
C) both metallic and nonmetallic elements
D) nonmetallic elements only
- 68) Determine the name for N_2O_5 .
- A) nitrogen oxide
B) dinitrogen pentoxide
C) nitrogen (II) oxide
D) nitrogen (IV) oxide
E) nitrogen tetroxide
- 69) What is the correct name for Cl_2O_7 ?
- A) dichlorine heptoxide
B) dichloride oxide
C) chloric acid
D) chlorine oxide
- 70) What is the predicted ionic charge of an element in Group IA/1?
- A) 1- B) 7+
C) 1+ D) 7-
- 71) Identify the compound with ionic bonds.
- A) CO B) H_2O
C) O_2 D) KBr
- 72) Give the name for SnO .
- A) tin (III) oxide B) tin (I) oxide
C) tin (II) oxide D) tin (IV) oxide
- 73) Give the name for H_2SO_4 .
- A) persulfuric acid
B) persulfurous acid
C) hyposulfurous acid
D) sulfurous acid
E) sulfuric acid
- 74) Which of the following is a *variable* metal?
- A) K B) Ni
C) Ca D) Al
- 75) The correct name for the ionic compound SnS_2 is _____.
- A) sodium sulfide
B) selenium sulfide
C) tin(IV) sulfide
D) tin(II) sulfide

- 76) Give the name for PBr_3 .
- potassium tribromide
 - phosphorus (III) bromide
 - phosphorus tribromide
 - phosphorus bromide
- 77) The acetate ion has the formula $\text{C}_2\text{H}_3\text{O}_2^-$. What is the systematic name for aqueous $\text{HC}_2\text{H}_3\text{O}_2$?
- carbonic acid
 - hydrogen carbonic acid
 - dicarbonic acid
 - acetic acid
- 78) Determine the name for TiCO_3 . Remember that titanium forms several ions.
- titanium (II) carbonite
 - titanium carbonite
 - titanium (I) carbonate
 - titanium (II) carbonate
 - titanium carbide
- 79) Identify the compound with covalent bonds.
- Ne
 - NaCl
 - CH_4
 - KBr
- 80) Write the name for $\text{Sn}(\text{SO}_4)_2$. Remember that Sn forms several ions.
- tin (II) sulfite
 - tin sulfide
 - tin (IV) sulfate
 - tin (I) sulfate
- 81) Which of the following acids is named using the prefix *hydro*-?
- HNO_2
 - H_2SO_4
 - HBr
 - $\text{HC}_2\text{H}_3\text{O}_2$
- 82) What is the chemical formula for hydroselenic acid?
- $\text{H}_2\text{SeO}_3(\text{aq})$
 - $\text{H}_2\text{Se}(\text{aq})$
 - $\text{HSeO}_2(\text{aq})$
 - $\text{HSe}(\text{aq})$
- 83) Determine the name for H_2CO_3 , which contains the carbonate ion.
- hydrocarbonic acid
 - carbonic acid
 - dihydrogen carbonate
 - hydrocarbide acid
- 84) In naming binary compounds, the negatively charged ion has the -ide suffix.
- True
 - False
- 85) Determine the name for Cl_2O .
- chlorate
 - chlorine (I) oxide
 - dichlorine monoxide
 - chlorine (II) oxide
 - chlorine oxide
- 86) Which of the following acids is named: "hydro - _____ - ic acid"?
- $\text{HF}(\text{aq})$
 - $\text{H}_2\text{S}(\text{aq})$
 - $\text{HBr}(\text{aq})$
 - all of the above
- 87) The phosphite ion, PO_3^{3-} , is classified as which of the following?
- polyatomic anion
 - monoatomic anion
 - polyatomic cation
 - monoatomic cation

- 88) What is the systematic name for K^+ ?
- A) phosphorus ion
 - B) potassium(I) ion
 - C) potassium ion
 - D) kalium ion
- 89) Which of the following is an ionic compound?
- A) SCl_2
 - B) PF_5
 - C) $Mg_3(PO_4)_2$
 - D) CH_2O
- 90) Iron pyrite (fool's gold) is iron(II) sulfide. What is its formula?
- A) $FeSO_3$
 - B) FeS
 - C) Fe_2S_3
 - D) $FeSO_4$
- 91) The correct name for the compound N_2O_4 is _____.
- A) nitrogen oxide
 - B) nitrogen (IV) oxide
 - C) dinitrogen tetroxide
 - D) nitrooxide
- 92) What is the chemical name given to the compound whose formula is N_2O_4 ?
- A) nitrogen quadraoxide
 - B) dinitrogen tetraoxide
 - C) nitrogen (IV) oxide
 - D) nitrogen (II) oxygen (IV)
- 93) The Roman numeral (II) in the name nickel(II) fluoride indicates that _____.
- A) there are two oxygen atoms per formula unit
 - B) there are two times as many nickel atoms present as oxygen atoms
 - C) there are two nickel atoms per formula unit
 - D) nickel has a 2+ charge
- 94) Which of the following will have a charge that is the same as the hydroxide ion?
- A) sulfate ion
 - B) phosphate ion
 - C) nitrate ion
 - D) ammonium ion
- 95) Which of the following ionic compounds is named *without* using a Roman numeral?
- A) CaO
 - B) $AuCl_3$
 - C) CuS
 - D) PbO

Answer Key

Testname: NAMING EXAM

- 51) B
- 52) D
- 53) A
- 54) A
- 55) B
- 56) C
- 57) B
- 58) B
- 59) A
- 60) A
- 61) B
- 62) B
- 63) D
- 64) B
- 65) D
- 66) D
- 67) C
- 68) B
- 69) A
- 70) C
- 71) D
- 72) C
- 73) E
- 74) B
- 75) C
- 76) C
- 77) D
- 78) D
- 79) C
- 80) C
- 81) C
- 82) B
- 83) B
- 84) A
- 85) C
- 86) D
- 87) A
- 88) C

Answer Key

Testname: NAMING EXAM

89) C

90) B

91) C

92) B

93) D

94) C

95) A