

Answers.

Part 1. Names and charges of ions.

1. ammonium	NH_4^+
2. bromide	Br^-
3. iodide	I^-
4. hypochlorite	ClO^-
5. chromate	CrO_4^{2-}
6. perchlorate	ClO_4^-
7. chlorate	ClO_3^-
8. chlorite	ClO_2^-
9. bisulfate or hydrogen sulfate	HSO_4^-
10. sulfite	SO_3^{2-}
11. sulfate	SO_4^{2-}
12. cyanide	CN^-
13. peroxide	O_2^{2-}
14. acetate	$\text{C}_2\text{H}_3\text{O}_2^-$
15. carbonate	CO_3^{2-}
16. bicarbonate or hydrogen carbonate	HCO_3^-
17. hydroxide	OH^-
18. dichromate	$\text{Cr}_2\text{O}_7^{2-}$
19. permanganate	MnO_4^-
20. phosphate	PO_4^{3-}
21. nitrate	NO_3^-
22. fluoride	F^-
23. oxide	O^{2-}
24. nitride	N^{3-}
25. nitrite	NO_2^-
26. chlorate	ClO_3^-
27. bisulfite or hydrogen sulfite	HSO_3^-
28. dihydrogen phosphate	H_2PO_4^-
29. hydrogen phosphate	HPO_4^{2-}
30. bromate	BrO_3^-

31. iodate	IO_3^-
32. periodate	IO_4^-
33. bromite	BrO_2^-
34. perbromate	BrO_4^-
35. chloride	Cl^-
36. sulfide	S^{2-}

Part 3. Acids and Bases. Answers

45. hydrochloric acid	HCl
46. hypochlorous acid	HClO
47. phosphoric acid	H_3PO_4
48. chlorous acid	HClO_2
49. nitrous acid	HNO_2
50. ammonia (the only base in list)	NH_3
51. perchloric acid	HClO_4
52. hydrofluoric acid	HF
53. acetic acid	$\text{HC}_2\text{H}_3\text{O}_2$
54. sulfurous acid	H_2SO_3
55. sulfuric acid	H_2SO_4
56. nitric acid	HNO_3
57. hydrofluoric acid	HF
58. hydrobromic acid	HBr
59. hydroiodic acid	HI
60. hypobromous acid	HBrO
61. periodic acid	HIO_4
62. iodic acid	HIO_2
63. perbromic acid	HBrO_4
64. bromic acid	HBrO_3
65. iodic acid	HIO_3
66. bromous acid	HBrO_2

67. chloric acid	HClO ₃
68. hypobromous acid	HBrO
69. hypoiodous acid	HIO

Part 5. Names of ionic salts. Answers

76. potassium peroxide	K ₂ O ₂
77. magnesium sulfide	MgS
78. copper(I) perchlorate	CuClO ₄
79. antimony(III) nitrate	Sb(NO ₃) ₃
80. lead(IV) acetate	Pb(C ₂ H ₃ O ₂) ₄
81. lithium permanganate	LiMnO ₄
82. vanadium(III) sulfate	V ₂ (SO ₄) ₃
83. rubidium chlorite	RbClO ₂
84. zinc carbonate	ZnCO ₃
85. titanium(IV) cyanate	Ti(OCN) ₄
86. silver iodate	AgIO ₃
87. sodium bicarbonate	NaHCO ₃
88. calcium dichromate	CaCr ₂ O ₇
89. silver hypochlorite	AgClO
90. manganese(II) sulfite	MnSO ₃
91. mercury(I) nitrate (Hg ₂ ²⁺ !)	Hg ₂ (NO ₃) ₂
92. iron(III) hydrogen phosphate	Fe ₂ (HPO ₄) ₃
93. lead(II) dihydrogen phosphate	Pb(H ₂ PO ₄) ₂
94. bismuth(V) phosphate	Bi ₃ (PO ₄) ₅
95. nickel(II) cyanide	Ni(CN) ₂
96. chromium(III) carbonate	Cr ₂ (CO ₃) ₃
97. cadmium chromate	CdCrO ₄
98. iron(II) oxalate	FeC ₂ O ₄

99. cobalt(II) peroxide	Co(O ₂)
100. aluminum oxide	Al ₂ O ₃
101. copper(I) iodide	CuI
102. ammonium permanganate	NH ₄ MnO ₄
103. barium permanganate	Ba(MnO ₄) ₂
104. beryllium dichromate	BeCr ₂ O ₇
105. vanadium(V) chloride	VCl ₅
106. mercury(II) nitrite	Hg(NO ₂) ₂
107. tin(IV) oxide	SnO ₂
108. tin(II) chloride	SnCl ₂
109. scandium(III) nitride	ScN
110. gold(III) sulfide	Au ₂ S ₃

Part 6. Ionic salts that form hydrates. Answers

111. iron(II) sulfate heptahydrate	FeSO ₄ ·7H ₂ O
112. sodium acetate monohydrate	NaC ₂ H ₃ O ₂ ·H ₂ O
113. nickel(II) iodide hexahydrate	NiI ₂ ·6H ₂ O
114. iron(III) cyanide trihydrate	Fe(CN) ₃ ·3H ₂ O
115. cobalt(II) bromide dihydrate	CoBr ₂ ·2H ₂ O
116. sodium sulfate tetrahydrate	NaSO ₄ ·4H ₂ O
117. zinc nitrate monohydrate	Zn(NO ₃) ₂ ·H ₂ O
118. copper(II) chloride dihydrate	CuCl ₂ ·2H ₂ O

Part 7. Covalent moleculars. Answers

119. carbon disulfide	CS ₂
120. dinitrogen monoxide	N ₂ O

121. silicon tetrachloride	SiCl ₄
122. phosphorus pentachloride	PCl ₅
123. nitrogen monoxide	NO
124. sulfur trioxide	SO ₃
125. carbon tetrachloride	CCl ₄
126. sulfur hexafluoride	SF ₆
127. nitrogen triiodide	NI ₃
128. molecular fluorine	F ₂
129. dinitrogen pentoxide	N ₂ O ₅
130. dinitrogen tetroxide	N ₂ O ₄
131. carbon monosulfide	CS
132. chlorine monofluoride	ClF
133. disulfur difluoride	S ₂ F ₂
134. carbon dioxide	CO ₂
135. phosphorus tribromide	PBr ₃
136. chlorine trifluoride	ClF ₃
137. iodine monobromide	IBr
138. boron trifluoride	BF ₃
139. iodine trifluoride	IF ₃
140. selenium dioxide	SeO ₂
141. dinitrogen trioxide	N ₂ O ₃
142. carbon tetrabromide	CBr ₄
143. diphosphorus pentoxide	P ₂ O ₅
144. silicon dioxide	SiO ₂
145. disilicon trinitride	Si ₂ N ₃
146. sulfur dihydride	SH ₂
147. bromine trichloride	BrCl ₃
148. dioxygen difluoride	O ₂ F ₂

149. xenon tetrafluoride	XeF ₄
150. oxygen dichloride	OCl ₂
151. chlorine dioxide	ClO ₂
152. selenium trioxide	SeO ₃
153. arsenic trichloride	AsCl ₃
154. arsenic pentachloride	AsCl ₅
155. molecular nitrogen	N ₂
156. sulfur tetrabromide	SBr ₄

Final Practice Quiz. Answers

157. phosphorus trichloride	PCl ₃
158. sulfur trioxide	SO ₃
159. potassium acetate	KC ₂ H ₃ O ₂
160. chromium(II) carbonate	CrCO ₃
161. silver iodide	AgI
162. chlorous acid	HClO ₂
163. sodium chromate	Na ₂ CrO ₄
164. xenon difluoride	XeF ₂
165. dinitrogen pentoxide	N ₂ O ₅
166. calcium chlorite	Ca(ClO ₂) ₂
167. sodium hypochlorite	NaClO
168. sulfuric acid	H ₂ SO ₄
169. periodic acid	HIO ₄
170. bromine monochloride	BrCl
171. nickel(II) cyanide dihydrate	Ni(CN) ₂ ·2H ₂ O
172. lithium peroxide	Li ₂ O ₂
173. selenium dioxide	SeO ₂
174. silicon tetrabromide	SiBr ₄
175. rubidium bicarbonate or rubidium hydrogen carbonate	RbHCO ₃
176. calcium hydroxide	Ca(OH) ₂
177. nitrous acid	HNO ₂

178. oxygen dibromide	OBr_2
179. copper(I) phosphate	Cu_3PO_4
180. silver nitrate	AgNO_3
181. hydroiodic acid	HI
182. nitrogen trifluoride	NF_3
183. arsenic trichloride	AsCl_3
184. ammonium nitrite	NH_4NO_2
185. mercury(I) perchlorate (!)	$\text{Hg}_2(\text{ClO}_4)_2$
186. iodine pentafluoride	IF_5
187. sodium dihydrogen phosphate	NaH_2PO_4
188. calcium hydrogen phosphate	CaHPO_4
189. magnesium bromate	$\text{Mg}(\text{BrO}_3)_2$
190. hypochlorous acid	HClO
191. carbon monosulfide	CS
192. aluminum bromite	$\text{Al}(\text{BrO}_2)_3$
193. copper(II) thiosulfate	CuS_2O_3
194. cobalt(II) thiocyanate	$\text{Co}(\text{SCN})_2$
195. chromium(III) perchlorate	$\text{Cr}(\text{ClO}_4)_3$
196. potassium chlorate	KClO_3
197. nitrogen dioxide	NO_2
198. carbon dioxide	CO_2
199. sodium chloride	NaCl
200. iron(II) sulfide	Fe_2S_3
201. ammonium sulfide trihydrate	$(\text{NH}_4)_2\text{S}\cdot 3\text{H}_2\text{O}$
202. vanadium(III) sulfate	$\text{V}_2(\text{SO}_4)_3$
203. hydrochloric acid	HCl
204. bismuth(III) iodate	$\text{Bi}(\text{IO}_3)_3$
205. lithium periodate	LiIO_4
206. sodium bisulfate or sodium hydrogen sulfate	NaHSO_4
207. nitric acid	HNO_3
208. bromic acid	HBrO_3
209. titanium(IV) sulfite	$\text{Ti}(\text{SO}_3)_2$
210. ammonium dichromate	$(\text{NH}_4)_2\text{Cr}_2\text{O}_7$

211. potassium permanganate	KMnO_4
212. scandium(III) bromide	ScBr_3
213. hydrofluoric acid	HF
214. carbon disulfide	CS_2
215. molecular fluorine	F_2
216. zinc bisulfite or zinc hydrogen sulfite	$\text{Zn}(\text{HSO}_3)_2$
217. calcium nitride	Ca_3N_2
218. lithium perbromate	LiBrO_4

Designed by Dr Mattson Sept 2015