

ANSWERS TO UNIT IV : INORGANIC NOMENCLATURE

- Self-Test (a) Na (e) Si (i) S (m) As (q) W
 (b) potassium (f) krypton (j) cesium (n) molybdenum (r) lead
 (c) Tl (g) F (k) Cd (o) Pt (s) As
 (d) mercury (h) chromium (l) beryllium (p) copper (t) boron
- (a) A, P (b) N, T, P (c) C, M (d) A, D, P (e) C, P (f) N, M
 - (a) copper(I) ion (b) chromium(III) ion (c) tungsten(VI) ion
 - (a) Co^{3+} (b) Ni^{2+} (c) V^{5+}
 - (a) $\text{Sn}(\text{SO}_4)_2$ (e) $\text{Hg}_2(\text{NO}_2)_2$ (i) Cr_2O_3 (m) $(\text{NH}_4)_2\text{Cr}_2\text{O}_7$ (q) $\text{Mg}(\text{MnO}_4)_2$
 (b) $(\text{NH}_4)_2\text{C}_2\text{O}_4$ (f) $\text{Fe}(\text{OH})_3$ (j) MnF_2 (n) Cu_3PO_4 (r) WBr_5
 (c) Li_2O (g) Ag_2SO_4 (k) KH_2PO_4 (o) $\text{Ca}(\text{ClO})_2$ (s) $(\text{NH}_4)_3\text{PO}_4$
 (d) Cu_3N (h) $\text{Pb}(\text{ClO}_4)_2$ (l) $\text{U}(\text{SO}_4)_2$ (p) NaHSO_3 (t) $\text{Hg}(\text{CH}_3\text{COO})_2$
 - (a) silver phosphate (h) copper(II) sulphate (o) aluminum hydroxide
 (b) aluminum sulphate (i) ammonium sulphide (p) chromium(III) iodide
 (c) iron(III) sulphide (j) ammonium hydrogen carbonate (q) tin(IV) oxide
 (d) copper(I) chloride (k) iron(II) oxalate (r) zinc dichromate
 (e) ammonium carbonate (l) magnesium hydrogen sulphite (s) vanadium(V) oxide
 (f) vanadium(III) chloride (m) lithium chlorite (t) strontium nitride
 (g) mercury(I) carbonate (n) sodium monohydrogen phosphate
 - (a) iron(III) bromide hexahydrate (f) sodium sulphide nonahydrate
 (b) lithium dichromate dihydrate (g) sodium sulphate decahydrate
 (c) aluminum oxide trihydrate (h) nickel(II) phosphate octahydrate
 (d) cobalt(II) fluoride tetrahydrate (i) magnesium monohydrogen phosphate heptahydrate
 (e) sodium carbonate monohydrate
 - (a) $\text{FePO}_4 \cdot 8\text{H}_2\text{O}$ (c) $\text{Cu}_3(\text{PO}_4)_2 \cdot 3\text{H}_2\text{O}$ (e) $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$
 (b) $\text{Cd}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$ (d) $\text{CrC}_2\text{O}_4 \cdot \text{H}_2\text{O}$ (f) $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$
 - (a) nitrogen dioxide (d) diphosphorus hexoxide (g) bromine monofluoride
 (b) chlorine trifluoride (e) dinitrogen trioxide (h) sulphur hexafluoride
 (c) tetrasulphur dinitride (f) sulphur tetrafluoride
 - (a) SO_3 (b) PCl_5 (c) XeF_6 (d) OF_2 (e) CO (f) CCl_4 (g) P_4S_3 (h) N_2S_5 (i) Si_3N_4
 - yellow = chromate; blue = copper(II). Therefore: CuCrO_4 = copper(II) chromate
 - iron(II) became iron(III)
 - (a) colourless (b) purple (c) blue (d) colourless (e) orange (f) pale pink
 - bright green = nickel(II); this positive ion will have to react with the negative ion, carbonate, in the potassium carbonate solution. Therefore: nickel carbonate = NiCO_3
 - magnesium oxide
 - copper(II) sulphate
 - sodium acetate
 - ammonium nitrite
 - molybdenum(V) chloride
 - lithium hydroxide monohydrate
 - platinum(IV) chloride
 - ammonium perchlorate
 - aluminum nitride
 - potassium permanganate
 - copper(I) sulphate
 - sulphuric acid
 - sodium carbonate decahydrate
 - sodium sulphite
 - lead(IV) hydrogen sulphate
 - tungsten(VI) fluoride
 - sodium dihydrogen phosphate
 - barium sulphide
 - ammonium chlorite
 - iron(II) hypochlorite
 - tin(II) cyanide
 - krypton difluoride
 - sodium phosphate
 - calcium sulphide
 - manganese(II) thiocyanate
 - silver permanganate

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| 40. platinum(III) oxide trihydrate | 65. copper(II) dichromate | |
| 41. phosphorus pentabromide | 66. nitrogen triiodide | |
| 42. copper(II) acetate | 67. chromium(II) bromide | |
| 43. aluminum perchlorate | 68. magnesium phosphide | |
| 44. ammonia | 69. iron(II) sulphate pentahydrate | |
| 45. aluminum sulphide | 70. calcium hydroxide | |
| 46. sodium hydroxide | 71. phosphoric acid | |
| 47. barium hydrogen sulphide tetrahydrate | 72. radium sulphate | |
| 48. dinitrogen monoxide | 73. potassium hydrogen oxalate | |
| 49. nitric acid | 74. dichlorine monoxide | |
| 50. cesium hydrogen carbonate | 75. titanium(IV) oxide | |
| 51. copper(I) sulphide | 76. nickel(II) sulphate heptahydrate | |
| 52. tricarbon disulphide | 77. magnesium chlorite | |
| 53. copper(II) nitrate hexahydrate | 78. lead(IV) chloride | |
| 54. cobalt(II) chlorate | 79. iron(III) hydrogen oxalate | |
| 55. manganese(III) oxide | 80. diiodine pentoxide | |
| 56. zinc acetate | 81. mercury(II) nitrate | |
| 57. acetic acid | 82. zinc hydroxide | |
| 58. manganese(III) phosphate | 83. hydrogen sulphide | |
| 59. chromium(III) nitrate nonahydrate | 84. xenon trioxide | |
| 60. strontium hypochlorite | 85. titanium(II) chloride | |
| 61. vanadium(III) nitride | 86. hydrofluoric acid | |
| 62. lead(IV) oxalate | 87. tin(IV) chromate | |
| 63. cobalt(III) fluoride | 88. cobalt(II) phosphate octahydrate | |
| 64. barium sulphite | 89. platinum(IV) sulphide | |
| 90. AgCl | 115. Mg(OH) ₂ | 140. Zn(ClO ₄) ₂ •6H ₂ O |
| 91. SO ₂ | 116. Mo ₂ S ₅ •3H ₂ O | 141. Au(NO ₃) ₃ |
| 92. Fe ₂ (C ₂ O ₄) ₃ | 117. Fe(H ₂ PO ₄) ₂ | 142. Mn ₂ (SO ₄) ₃ |
| 93. BeO | 118. Cl ₄ | 143. HCl |
| 94. Pb(CH ₃ COO) ₂ •10H ₂ O | 119. ZnSO ₄ | 144. CrO |
| 95. K ₂ CrO ₄ | 120. Hg ₂ S | 145. Zn(HS) ₂ |
| 96. Hg ₂ (CH ₃ COO) ₂ | 121. H ₂ SO ₃ | 146. MoS ₃ |
| 97. MoCl ₃ | 122. FeF ₂ •8H ₂ O | 147. Fe ₂ (CO ₃) ₃ |
| 98. NH ₃ | 123. Mg(HSO ₄) ₂ | 148. IF ₅ |
| 99. Au ₂ S ₃ | 124. Al ₂ S ₃ | 149. MnO ₂ |
| 100. Ag ₂ Cr ₂ O ₇ | 125. RaCO ₃ | 150. HCN |
| 101. Ca(CH ₃ COO) ₂ | 126. XeF ₄ | 151. Fe ₂ (SO ₄) ₃ •9H ₂ O |
| 102. Cr ₂ (C ₂ O ₄) ₃ | 127. Na ₂ O | 152. KNO ₂ |
| 103. Ca(NO ₂) ₂ | 128. Ba ₃ (PO ₄) ₂ | 153. CrP |
| 104. F ₂ O ₂ | 129. Hg ₂ (NO ₃) ₂ •2H ₂ O | 154. Ni(OH) ₂ |
| 105. Mo ₂ O ₅ | 130. NaClO | 155. ClO ₄ |
| 106. SiF ₄ | 131. AuCN | 156. Hg(SCN) ₂ |
| 107. Cd(CH ₃ COO) ₂ | 132. SnBr ₄ | 157. HNO ₂ |
| 108. HgCl ₂ | 133. HI | 158. PbCO ₃ |
| 109. LiHSO ₃ | 134. S ₄ N ₄ | 159. NaHC ₂ O ₄ |
| 110. CH ₃ COOH | 135. Fe(OH) ₂ | 160. AlBr ₃ •6H ₂ O |
| 111. Mg(ClO ₃) ₂ •6H ₂ O | 136. CuF | 161. PbI ₂ |
| 112. PF ₃ | 137. Sn(HCO ₃) ₂ | 162. Ag ₂ O |
| 113. CuI ₂ | 138. N ₂ O ₅ | 163. Mn(HPO ₄) ₂ |
| 114. Ca ₃ N ₂ | 139. Zn(HSO ₃) ₂ | |