

Writing and Balancing Chemical Equations Chemistry 110

I] On the line at the left, write the letter corresponding to the reaction type:

- (A) combination/Synthesis (B) decomposition (C) replacement/single replacement
(D) double displacement (E) combustion of an organic fuel

PLUS

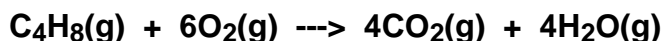
II] Write and balance the following chemical equations.....

A. using correct chemical formulas

and

B. correct physical states for reactants and products { (g),(l),(s), and (aq) }

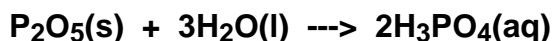
E 1) Gaseous C_4H_8 + oxygen gas \rightarrow carbon dioxide + water



C 2) Gaseous chlorine + solid cobalt (III) iodide \rightarrow iodine + cobalt (III) chloride



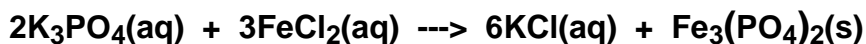
A 3) Solid diphosphorus pentoxide + water(l) \rightarrow phosphoric acid



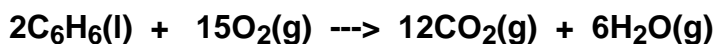
D 4) Sulfurous Acid + aqueous potassium hydroxide \rightarrow water + potassium sulfite



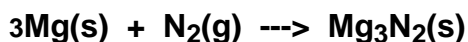
D 5) Aqueous potassium phosphate + aqueous ferrous chloride \rightarrow potassium chloride +
ferrous phosphate



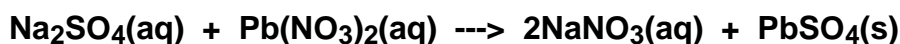
E 6) Liquid C_6H_6 + oxygen \rightarrow carbon dioxide + water



A 7) Magnesium metal + nitrogen \rightarrow magnesium nitride



D 8) Aqueous sodium sulfate + aqueous lead (II) nitrate \rightarrow sodium nitrate +
lead (II) sulfate



C 9) Solid potassium bromide + chlorine gas \rightarrow bromine + potassium chloride

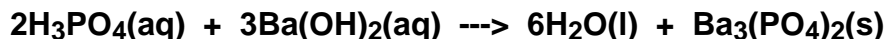


B

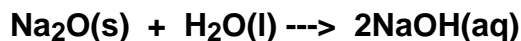
B 10) Solid mercury (II) oxide ---> mercury metal + oxygen



 D 11) Phosphoric acid + aqueous barium hydroxide ---> water + barium phosphate



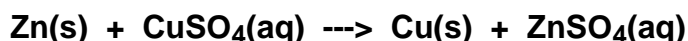
 A 12) Solid sodium oxide + water(l) ---> sodium hydroxide



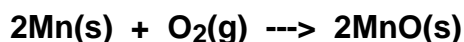
 B 13) Solid aluminum chloride---> aluminum + chlorine



 C 14) Zinc metal and aqueous cupric sulfate reacts to form copper plus zinc sulfate



 A 15) Manganese metal reacts with oxygen gas to form manganese (II) oxide



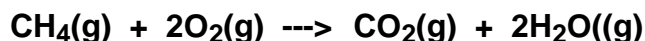
 D 16) Gaseous dihydrogen sulfide is bubbled through aqueous copper (II) nitrate to produce copper (II) sulfide and nitric acid



 B 17) Solid Iron (III) hydroxide is heated to produce gaseous water and iron (III) oxide



 E 18) Gaseous methane ,CH₄, is ignited in oxygen to produce carbon dioxide and water



 B 19) Sulfurous acid breaks down into water and sulfur dioxide gas



 C 20) Calcium metal + water (l) ---> calcium hydroxide + hydrogen

