Key

Review for test Nov 2016

A. Provide the formula for each of the following.

1. Copper (II) bromide $CuBr_2$
2. Aluminum sulfate $Al_2(SO_4)_3$ (Al^{+3} SO_4^{-2})
3. Potassium nitrate KNO_3
4. Iron (II) carbonate $FeCO_3$
5. Lead (II) phosphate $Pb_3(PO_4)_2$
6. Diphosphorous pentoxide P_2O_5
7. Nickel (II) nitrate $Ni(NO_3)_2$
8. Ammonium dichromate $(NH_4)_2Cr_2O_7$
9. Zinc sulfate $ZnSO_4$
10. Tin (II) chloride $SnCl_2$
11. Ammonium carbonate $(NH_4)_2CO_3$
12. Nickel (II) acetate $Ni(C_2H_3O_2)_2$
13. Sodium chromate Na_2CrO_4
14. Potassium permanganate $KMnO_4$
15. Mercury (I) oxide Hg_2O
16. Lead (II) chloride $PbCl_2$
17. Hydroiodic acid $HI_{(aq)}$
18. Iron (II) sulfite $Fe(SO_3)$
19. Magnesium nitrate $Mg(NO_3)_2$
20. Sodium phosphate Na_3PO_4
21. Magnesium sulfite $MgSO_3$
22. Calcium sulfate dihydrate $CaSO_4 \cdot 2H_2O$
23. Calcium chloride dihydrate $CaCl_2 \cdot 2H_2O$
24. Barium chloride tetrahydrate $BaCl_2 \cdot 4H_2O$
25. Sulfurous acid $H_2SO_{3(aq)}$

B. Provide the name for each of the following:

1. HgF_2 Mercury (II) fluoride
2. KCl Potassium Chloride
3. $KMnO_4$ Potassium Permanganate
4. $KClO_3$ Potassium Chlorate
5. NH_4MnO_4 Ammonium Permanganate
6. $Ba_3(PO_4)_2$ Barium Phosphate
7. Fe_2O_3 Iron (III) oxide
8. CoF_3 Cobalt (III) Fluoride
9. $Ca(ClO_3)_2$ Calcium Chlorate
10. $HC_2H_3O_2$ acetic acid
11. LiI lithium iodide
12. $Al_2(SO_4)_3$ Aluminum Sulphate
13. HBr Hydro Bromic acid
14. $CrCl_3$ Chromium (III) Chloride
15. H_3PO_4 Phosphoric acid
16. $LiMnO_4$ Lithium Permanganate
17. $Fe_2(SO_4)_3$ Iron (III) Sulphate
18. $Mg(CN)_2$ Magnesium Cyanide
19. HNO_3 Nitric acid
20. $Na_2S \cdot 5H_2O$ Sodium Sulfide • Pentahydrate
21. $Fe(NO_2)_2$ Iron (II) Nitrite
22. HCl hydro chloric acid
23. $SbCl_3$ Antimony (III) Chloride
24. P_4O_{10} tetra Phosphorus deca oxide
25. $Ba(OH)_2$ Barium hydroxide
26. HF hydro fluoric acid
27. $Fe(NO_2)_3 \cdot 6H_2O$ Iron (III) Nitrite hexahydrate

1. For each of the following fully **balance** with lowest ratios:

a) 3 $(NH_4)_2CO_3$ + 2 $Al(NO_3)_3$ → 6 NH_4NO_3 + ____ $Al_2(CO_3)_3$

b) 2 C_2H_2 + 5 O_2 → 4 CO_2 + 2 H_2O

2. For each of the following equations, create a **balanced** equation:

a) Calcium nitrate + sodium phosphate → calcium phosphate + sodium nitrate

$3Ca(NO_3)_2 + 2Na_3PO_4 \rightarrow Ca_3(PO_4)_2 + 6NaNO_3$

b) nitric acid + calcium hydroxide → water + calcium nitrate

$2HNO_3 + Ca(OH)_2 \rightarrow 2H_2O + Ca(NO_3)_2$

c) potassium iodide + lead (II) nitrate ⟶ potassium nitrate + lead (II) iodide

$2KI + Pb(NO_3)_2 \rightarrow 2KNO_3 + PbI_2$

d) iron (III) oxide + carbon ⟶ carbon monoxide (g) + iron

$Fe_2O_3 + 3C \rightarrow 3CO + 2Fe$

e) mercury (II) oxide ⟶ mercury + oxygen (g)

$2HgO \rightarrow 2Hg + O_2$

f) calcium + aluminum chloride ⟶ calcium chloride + aluminum

$3Ca + 2AlCl_3 \rightarrow 3CaCl_2 + 2Al$

g) mercury (I) nitrate + sodium carbonate ⟶ sodium nitrate + mercury (I) carbonate

$2HgNO_3 + Na_2CO_3 \rightarrow 2NaNO_3 + Hg_2CO_3$

h) rubidium + acetic acid (CH_3COOH) ⟶ rubidium acetate + hydrogen (g)

$2Rb + 2HC_2H_3O_2 \rightarrow 2RbC_2H_3O_2 + H_2$

i) potassium bromide + aluminum nitrate ⟶ potassium nitrate + aluminum bromide

$3KBr + Al(NO_3)_3 \rightarrow 3KNO_3 + AlBr_3$

j) calcium phosphate + aluminum sulfate ⟶ calcium sulfate + aluminum phosphate

$Ca_3(PO_4)_2 \; Al_2(SO_4)_3 \rightarrow 3CaSO_4 + 2AlPO_4$