Naming Hydrates and Acids

Use the information in Hebden pg. 72-74 to complete the following:

Part A) Write formulas for the following hydrates:

1. Copper(II)sulfate pentahydrate — $CuSO_4 \cdot 5H_2O$
2. Lithium hydroxide monohydrate — $LiOH \cdot H_2O$
3. Nickel sulfate heptahydrate — $NiSO_4 \cdot 7H_2O$
4. Aluminum sulfate hexahydrate — $Al_2(SO_4)_3 \cdot 6H_2O$
5. Iron(II)chloride trihydrate — $FeCl_3 \cdot 3H_2O$

Part B) Write names for the following hydrated ionic compounds:

6. $Co_3(PO_4)_2 * 4H_2O$ — Cobalt(II) phosphate tetrahydrate
7. $AgCl * H_2O$ — Silver chloride monohydrate
8. $Zn(OH)_2 * 8H_2O$ — Zinc hydroxide octahydrate
9. $CuCl_2 * 2H_2O$ — Copper(II) chloride dihydrate
10. $PbO_2 * 3H_2O$ — Lead(IV) oxide trihydrate

Part C) Write formulas for each of the following acids:

11. Hydrobromic acid — HBr
12. Hydroiodic acid — HI
13. Nitric acid — HNO_3
14. Nitrous acid — HNO_2
15. Sulfuric acid — H_2SO_4
16. Acetic acid — CH_3COOH or $HC_2H_3O_2$

Part D) Write names for the following acids:

16. HCl — Hydrochloric acid
17. H_3PO_4 — Phosphoric acid
18. CH_3COOH — Acetic acid
19. H_2SO_4 — Sulfuric acid
20. HF — Hydrofluoric acid
21. H_2CO_3 — Carbonic acid.

22. Explain the difference between a binary acid and an oxy-acid.

2 atom types

contain at least 1 oxygen atom