9. Smallest buoyancy correction should be for the most dense items PbO_2, Pb, Ir & Hg.
Larger corrections are required for items with very low densities, such as Li.

14. TD = To deliver : will dispense a specific volume of liquid if used properly.
TC = To contain : will hold a specific volume of liquid if used properly

15. $$\frac{0.1500 \text{ mol } K_2SO_4}{L} \cdot 0.250L \cdot \frac{174,260}{1 \text{ mol}} = 6.53 g$$

Dissolve 6.53 in small amount of water in a 250 mL volumetric flask. Once dissolved, dilute to the mark. Cover and invert at least 20 times to allow complete mixing.

17. a) rinse pipet well with H_2O first then with the solution you are transferring. Draw solution into the pipet and fill slightly above the mark. Slowly release pressure so that the meniscus sits at the mark. Allow gravity to drain solution into target container. Do not blow out the pipet.

   b) The transfer pipet.

19   The trap prevents water from back-flowing into the first vacuum flask

The watch glass prevents dust from falling into the weighing bottle

21   mass of H_2O = $20.2144g - 10.2634g = 9.951g$

density of H_2O @ 20°C = 0.9982071 g/mL

∴ Volume of H_2O = $9.951g \cdot \dfrac{1mL}{0.9982071g} = 9.96887 mL$

   * this is not buoyancy corrected!