IGCSE (EDEXCEL) Chemistry : Solubility 2 answers

N.B. The syllabus has the following statement below, but compounds have varying degrees of solubility, Students that look up the solubility from chemical data books may find different answers.

know the general rules for predicting the solubility of ionic compounds in water:

- common sodium, potassium and ammonium compounds are soluble
- all nitrates are soluble
- common chlorides are soluble, except those of silver and lead(II)
- common sulfates are soluble, except for those of barium, calcium and lead(II)
- common carbonates are insoluble, except for those of sodium, potassium and ammonium
- common hydroxides are insoluble except for those of sodium, potassium and calcium (calcium hydroxide is slightly soluble).

Q1. **Soluble:**
Sodium chloride, Calcium nitrate, Calcium hydroxide, Ammonium bromide, Silver nitrate

Insoluble:
Silver chloride, Lead sulphate, Calcium sulphate, Lead carbonate, Magnesium hydroxide

Q2. **Insoluble :** Silver chloride, Calcium carbonate, Strontium hydroxide, Magnesium hydroxide, Silver bromide, Copper hydroxide, Silver iodide, Lead chloride, Barium sulphate, Barium carbonate, Litium carbonate, Iron hydroxide, Copper carbonate, Iron hydroxide.

Q3. soluble, soluble, soluble, silver, lead, insoluble, barium, calcium, soluble, insoluble, sodium, ammonium, potassium, soluble, insoluble.

Q4. **Soluble:**
Strontium nitrate, Potassium hydroxide, Sodium carbonate

Insoluble:
Calcium sulphate, Silver iodide, Lead chloride

Q5. sodium, potassium, ammonium, nitrates, Chlorides, chloride, sulphate, sulphate, sulphate, sulphates, Carbonates, potassium, carbonate, sodium, insoluble.

Q6. **Soluble:**
Strontium chloride, Iron chloride, Sodium hydroxide.

Insoluble:
Calcium carbonate, Lead carbonate, silver bromide.