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Solution 1
Metal - Mercury.
Non metal - Bromine.
Solution 2
Metals are electropositive elements because they can form positive ions by losing electrons.
Non-metals are electronegative elements because they can form negative ions by gaining electrons.
Solution 3
(a) Aluminium.
(b) Oxygen.
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Solution 4
Cesium.
Solution 5
Lead.
Solution 6
False.
Solution 7
(i) Aluminium.
(ii) Copper.
Solution 8
Iron nail gets covered with a red-brown coating of copper metal;
The blue colour of copper sulphate solution fades gradually.
Solution 9
Aqua-regia is a freshly prepared mixture of one part of concentrated nitric acid and 3 parts of concentrated hydrochloric acid. Gold and platinum dissolve in aqua-regia
Solution 10
(a) Carbon dioxide and sulphur dioxide.
(b) Sodium oxide and magnesium oxide.
Solution 11
Amphoteric oxides.
Solution 12
Aluminium and zinc.
Solution 13
Copper coin will get a shining greyish white coating of silver metal.
The color of the solution will turn blue.
Solution 14
(a) High thermal conductivity.
(b) High electrical conductivity.
Solution 15
Sodium hydride,Hydrogen sulphide
Solution 16
(a) Gold.
(b) Potassium.
(c) Mercury.
Solution 17
Copper.
Solution 18
(a) Sodium.
(b) White phosphorus.
Solution 19

(a)

$$4Na(s) + O_2(g) \rightarrow 2Na_2O(s)$$

Sodium (Metal) + Oxygen (From air) → Sodium oxide (Basic oxide)

(b)

$$2Mg(s) + O_2(g) \rightarrow 2MgO(s)$$

Magnesium (Metal) + Oxygen (From air) → Magnesium oxide (Basic oxide)

Solution 20
(a) Aluminium and copper.
(b) Copper and aluminium.
(c) Gold and silver.
Solution 21
Aluminium foil.
Solution 22
(a) Hydrogen.
(b) Hydrogen.
(c) Carbon.
(d) Nitrogen.
(e) Sulphur.
Solution 23
(a) Metals are malleable.
(b) Non-metals are non-malleable.
Solution 24
Brittleness is the property of being brittle i.e. breaking easily.
Non-metals show brittleness.
Solution 25
When a strip of zinc metal is put in copper sulphate solution, then the blue colour of copper sulphate solution fades gradually and red brown coating of copper is deposited on zinc strip.
Solution 26
When a strip of copper metal is immersed in silver nitrate solution, the solution gradually becomes blue and a shining greyish-white deposit of silver metal is formed on copper strip.
Solution 27
When iron nails are placed in copper sulphate solution, the blue colour of copper sulphate solution fades gradually and red-brown copper metal is formed.
Solution 28
If a strip of silver metal is kept immersed in copper sulphate solution for some time, then no reaction occurs. This shows that silver is not able to displace copper from copper sulphate solution.
Solution 29
Blue color of copper sulphate is destroyed because iron displaces copper from copper sulphate solution as iron is more reactive than copper.

********** END **********