

## Page 100:

Solution 69

- (a) No solution will turn blue litmus to red.
- (b) Solution Q (sodium hydroxide) will turn red litmus blue.

Solution 70

A is copper sulphate pentahydrate, CuSO<sub>4</sub>.5H<sub>2</sub>O

B is water, H<sub>2</sub>O

C is anhydrous copper sulphate, CuSO<sub>4</sub>

D is water,  $H_2O$ 

Solution 71

X is Sodium chloride. The process is called Chlor-alkali process.

Solution 72

- (a)  $Ca(OH)_2$  and  $Cl_2$
- (b) NaCl, NH $_3$ , H $_2$ O and CO $_2$
- (c)  $2CaSO_4.H_2O$
- (d) NaHCO<sub>3</sub>
- (e) NaHCO<sub>3</sub>

Solution 73

- (a) Ammonium chloride, NH<sub>4</sub>Cl
- (b) Sodium chloride, NaCl
- (c) Sodium carbonate, Na<sub>2</sub>CO<sub>3</sub>

Solution 74

(a) Plaster of Paris.

(b)

CaSO<sub>4</sub>, 
$$2H_2O \xrightarrow{\text{Heatto}100^{\circ}C}$$
 CaSO<sub>4</sub>,  $\frac{1}{2}H_2O + \frac{1}{2}H_2O$ 

Gypsum

Plaster of Paris

Water

(c) POP is used in hospitals for setting fractured bones in the right position to ensure correct healing. Solution 75

Solution 76

Bleaching powder, CaOCl<sub>2</sub>.

$$Ca(OH)_2 + Cl_2 \rightarrow CaOCl_2 + H_2O$$

Solution 77

Salt X is like sodium carbonate,  $Na_2CO_3$ , which is made from a strong base and a weak acid. On dissolving in water, salt X gets hydrolysed to form some strong base and some weak acid. The strong base thus formed makes the solution alkaline which turns red litmus blue.

Solution 78

Baking powder; When baking powder mixes with water, then

sodium hydrogencarbonate reacts with tartaric acid to evolve carbon dioxide gas which gets trapped in the wet dough and bubbles out slowly making the cake soft and spongy.

Solution 79

Plaster of Paris.

Solution 80

Sodium hypochlorite, NaClO; used in making household bleaches and for bleaching fabrics.

Solution 81

- (a) Gypsum  $CaSO_4.2H_2O$
- (b) Copper sulphate crystals  $CuSO_4.5H_2O$
- (c) Sodium carbonate crystals Na<sub>2</sub>CO<sub>3</sub>.10H<sub>2</sub>O

Solution 82

- (a) 5.
- (b) 10.
- (c) 2.

\*\*\*\*\*\* END \*\*\*\*\*\*