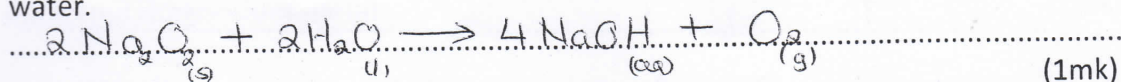


(b) Write an equation for the reaction that occurred in the flask between solid H and water.



21. The table below gives the solubility of salt L and K at 10°C and 80°C. Solubility in g/100g water

Salt	At 10°C	At 80°C
L	60	75
K	20	32

When an aqueous mixture containing 80g of L and 10g of K in 100g water at 80°C was cooled to 10°C, crystallization occurred.

(a) What is crystallization (1mk)

Process of allowing saturated solutions to cool for crystals to form.

(b) Determine the mass of the crystals formed (1mk)

$$75 - 60 = 15 + 5 = 20\text{g}$$

$$80 - 60 = 20\text{g}$$

(c) Name the method of separation (1mk)

Fractional crystallisation.

22. The table below gives elements represented by letters T,U,V,W,X,Y and their atomic numbers. (Letters are not the actual symbols).

Element	T	U	V	W	X	Y
Atomic number	12	13	14	15	16	17

a i) How does the atomic radius of V compare with that of X? Explain. (2mks)

V is larger than X.
V has a lower nuclear charge than X, due to less number of protons. (due to less effective nuclear charge.)

ii) Give the formula of the compound that could be formed between U and X. (1mk)

