

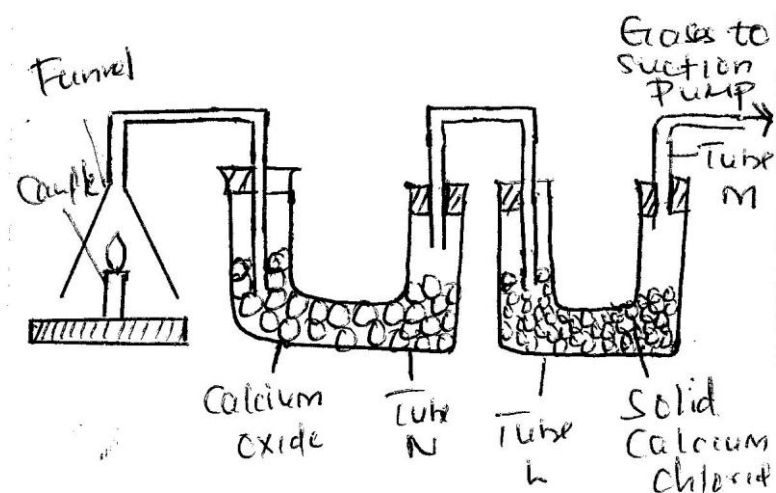
vi). On the grid, indicate with a tick the position of element x which is in the third period of the periodic table and forms x^{3-} ions. (1mk)

b) State three uses of the elements in group O (Noble gases). (3mks)

2. a) Candle wax is mainly a compound consisting of two elements. Name the two elements.

(2mks)

b) The set-up below was used to investigate the burning of a candle. Study it and answer the questions that follow.



i). What would happen to the burning candle if the pump was turned off? (3mks)

ii). State and explain the changes in the mass that are likely to occur in tube N by the end of the experiment. (3mks)

iii). Name two gases that come out through tube M. (2mks)

iv). What is the purpose of calcium chloride in tube L?(1mk)

v). Name another substance that could be used in place of calcium oxide in tube N.
(1mk)

3. a) What is meant by the terms: (2mks)

i). Element

ii). Atomic number

b) If the formula for a chloride of titanium is TiCl_3 . What is the formula of its sulphate?

(1mk)

c) What are isotopes? (1mk)

d) Determine the number of neutrons in $^{18}_8\text{O}$ (1mk)

4. Distinguish between ionization energy and electron affinity. (2mks)

5. Giving one example, define the term radical. (2mks)

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