

## GCSE Chemistry B (Twenty First Century Science) J258/01 Breadth in Chemistry (Foundation Tier)

## **Question Set 30**

Multiple Choice Questions

1

Lithium-ion batteries are used in phones, tablets and electric cars.

- (a) Lithium reacts with chlorine and with bromine.
  - (i) Lithium is in Group 1. Chlorine and bromine are in Group 17.

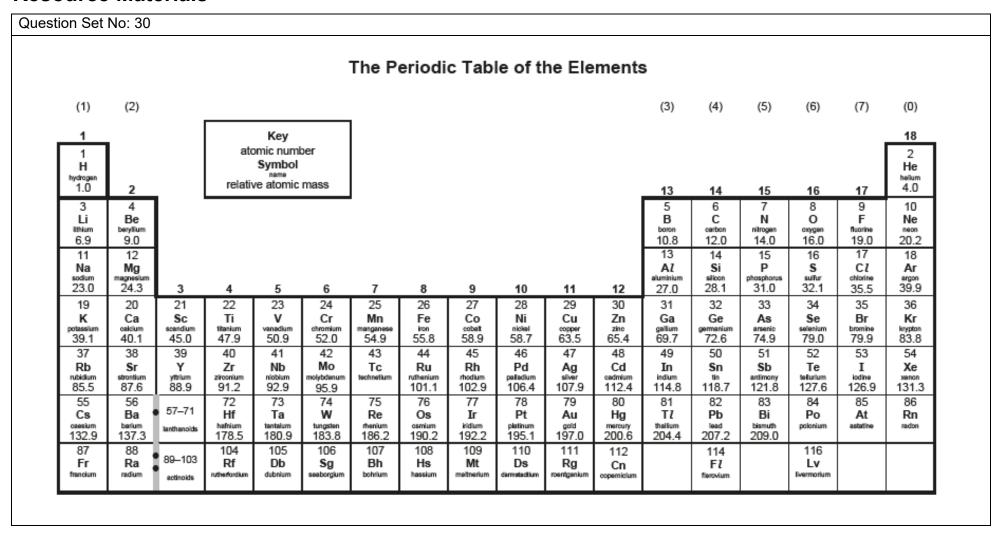
Draw lines to connect each element with one correct property.

**Element Property** Conducts electricity Lithium Unreactive (Group 1) Colourless gas Chlorine (Group 17) Green gas [2] (ii) 14g of lithium reacts with 71g of chlorine. What mass of chlorine reacts with 5.6 g of lithium? Mass of chlorine =.....g [2] (iii) Jack reacts lithium with chlorine. He then reacts lithium with bromine. Describe how the rates of these two reactions are different. [1] (b) Lithium is made by the electrolysis of molten lithium chloride. Which substance is formed at each electrode? Put a (ring) around each correct answer. Anode (positive electrode): chloride chlorine hydride hydrogen Cathode (negative electrode): **oxide** lithium oxygen [2]

		[1]
	A chemical cell produces a potential difference until the reactants are used up.	-4-
	A chemical cell produces a potential difference that lasts for a short time.	
	A chemical cell takes a long time to get to its full potential difference.	
	A chemical cell produces its full potential difference but the potential difference then quickly decreases.	
	Tick (✓) one box.	
	Which statement is the correct definition for a chemical cell?	
(0)	Lithium-ion batteries contain chemical cells.	

## **Total Marks for Question Set 30: 8**

## **Resource Materials**





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