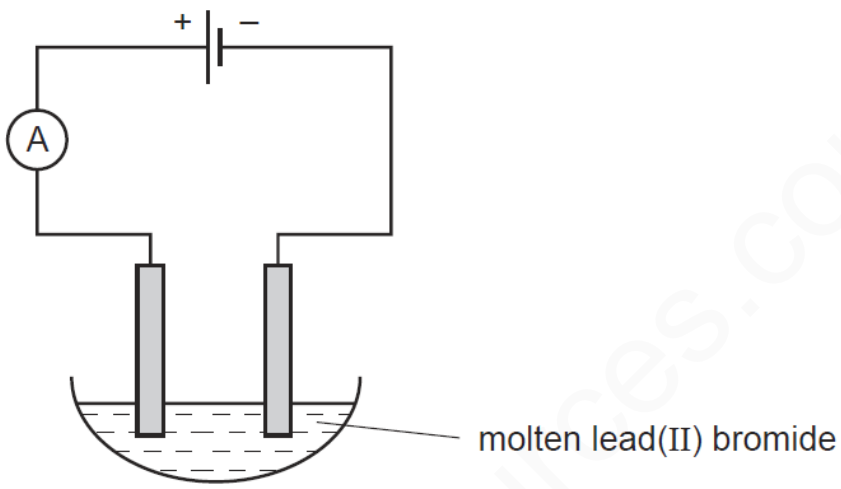
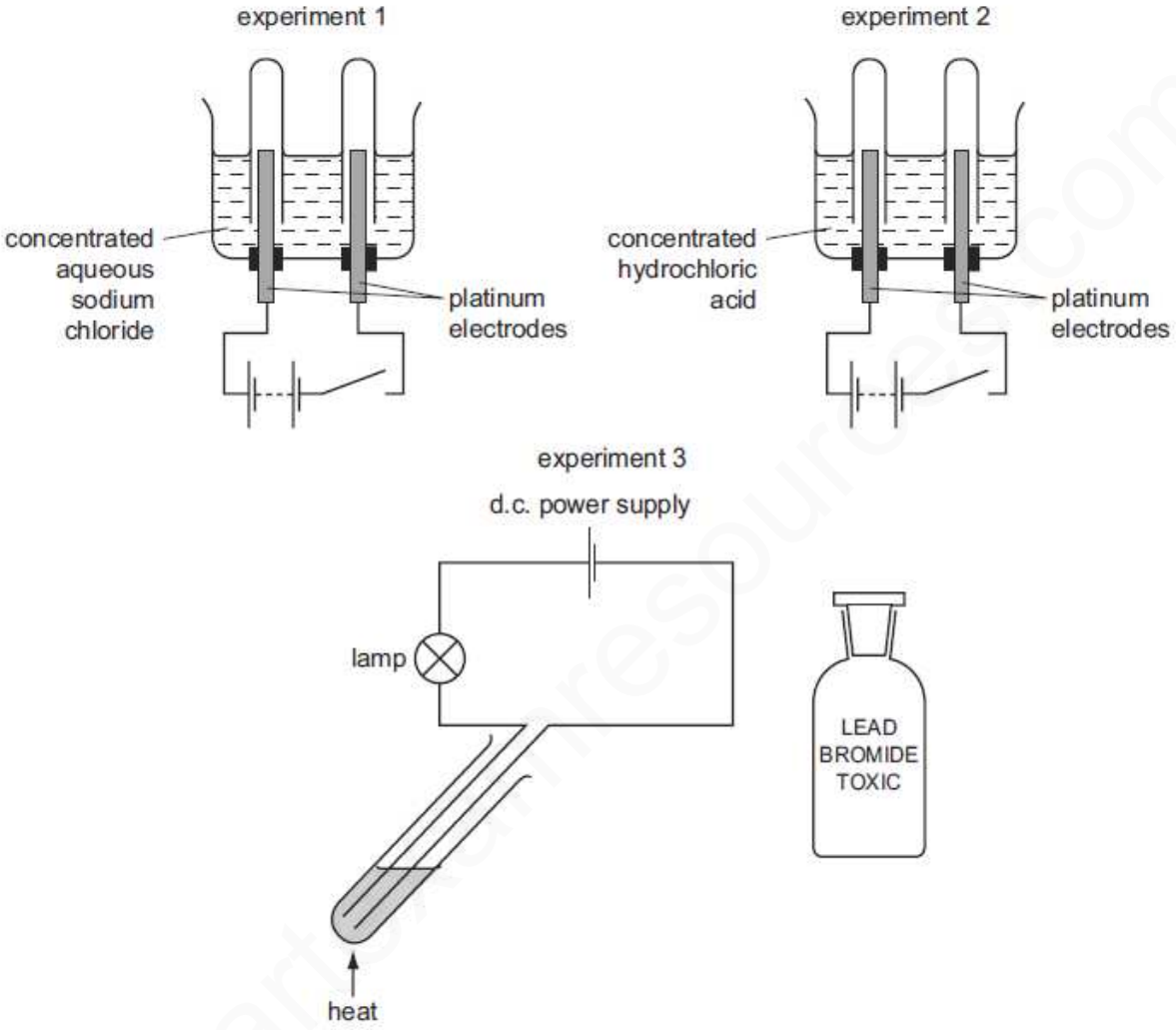
NO:	**ELECTROLYSIS-MOLTEN COMPOUNDS-SET-1**
1	A molten compound is electrolysed. Two atoms of X are deposited at the negative electrode at the same time as three atoms of Y are deposited at the positive electrode. These results show that: X is a …1…; Y is a …2…; the formula of the compound is …3… . How are gaps 1, 2 and 3 correctly completed? **A** metal / non-metal / X_3Y_2 **B** metal / non-metal / X_2Y_3 **C** non-metal / metal / X_3Y_2 **D** non-metal / metal / X_2Y_3
Ms-1	B
2	Two elements X and Y form ionic compounds, XBr_2 and Y_2O_3. The compounds are separately melted and electricity is passed through the liquids. What are the products at the cathodes? **A** bromine and oxygen **B** bromine and Y **C** oxygen and X **D** X and Y
Ms-2	D

3	Molten lead(II) bromide is electrolysed as shown.  Which ions are discharged at each electrode? <table><tr><th></th><th>positive electrode</th><th>negative electrode</th></tr><tr><td>**A**</td><td>Pb^{+}</td><td>Br^{2-}</td></tr><tr><td>**B**</td><td>Pb^{2+}</td><td>Br^{-}</td></tr><tr><td>**C**</td><td>Br^{2-}</td><td>Pb^{+}</td></tr><tr><td>**D**</td><td>Br^{-}</td><td>Pb^{2+}</td></tr></table>
Ms-3	D
4	Which of these elements could be formed at the anode when a molten salt is electrolysed? **A** copper **B** iodine **C** lithium **D** strontium
Ms-4	B

5	Which statement about the electrolysis of molten lead(II) bromide is correct? **A** A colourless gas is seen at the cathode. **B** A grey metal is seen at the anode. **C** A red/brown gas is seen at the anode. **D** A red/brown metal is seen at the cathode.
Ms-5	C

6	Concentrated aqueous sodium chloride, concentrated hydrochloric acid and molten lead bromide were separately electrolysed in experiments 1, 2 and 3.  Which statement about the electrode products is correct? **A** Gases were given off at the anode in experiments 2 and 3 only. **B** Gases were given off at the cathode in experiments 1 and 2 only. **C** Metals were formed at the anode in experiments 1 and 3 only. **D** Metals were formed at the cathode in experiments 1 and 3 only.
Ms-6	B

7

What will be produced at the anode and at the cathode, if molten potassium chloride is electrolysed?

	anode (+)	cathode (-)
A	chlorine	hydrogen
B	chlorine	potassium
C	hydrogen	chlorine
D	potassium	chlorine

Ms-7 B

8

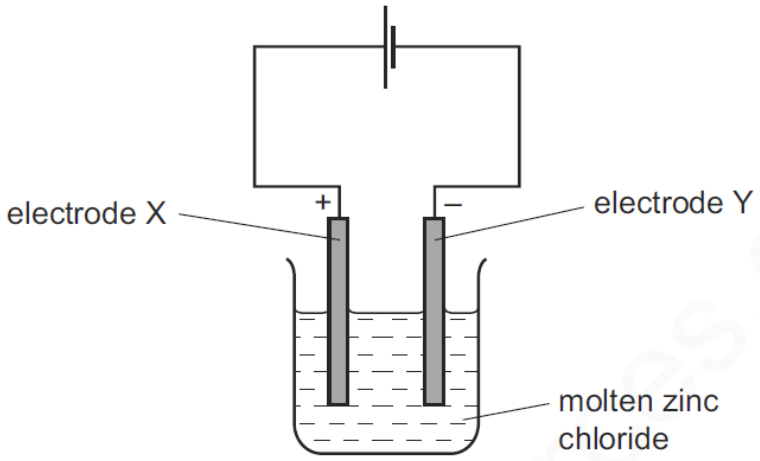
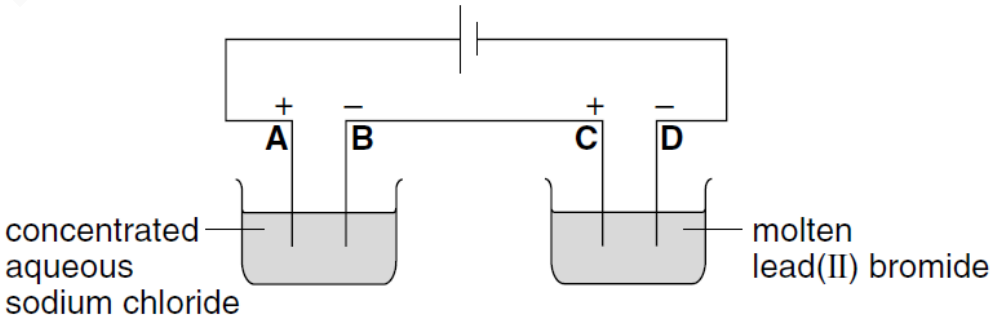
Two chemical processes are described below.

- In the combustion of methane, energy is .....1..... .
- In the electrolysis of molten lead(II) bromide, energy is .....2..... .

Which words correctly complete gaps 1 and 2?

	1	2
A	given out	given out
B	given out	taken in
C	taken in	given out
D	taken in	taken in

Ms-8 B

9	The diagram shows the electrolysis of molten zinc chloride, $ZnCl_2$.  Which statement is correct? **A** Oxidation occurs at electrode X and the equation is: $2Cl^- \rightarrow Cl_2 + 2e^-$. **B** Oxidation occurs at electrode Y and the equation is: $Zn^{2+} + 2e^- \rightarrow Zn$. **C** Reduction occurs at electrode X and the equation is: $Zn^{2+} + 2e^- \rightarrow Zn$. **D** Reduction occurs at electrode Y and the equation is: $2Cl^- \rightarrow Cl_2 + 2e^-$.
Ms-9	A
10	The following electrolysis circuit is set up, using inert electrodes. At which electrode is a metal deposited? 
Ms-10	D

11	Metal X is low in the reactivity series and it is liberated by electrolysis of its bromide. Metal X is ……1…… and the bromide is ……2…… . Which words correctly complete gaps 1 and 2? **A** lead / in solution **B** lead / molten **C** sodium / in solution **D** sodium / molten
Ms-11	B