

**Paper Reference(s) 1CH0/1H**  
**Pearson Edexcel Level 1/Level 2 GCSE**  
**(9–1)**

**Chemistry**  
**PAPER 1**  
**Higher Tier**

**Diagram Booklet**

**In the boxes below, write your name, centre number and candidate number.**

<b>Surname</b>					
<b>Other names</b>					
<b>Centre Number</b>					
<b>Candidate Number</b>					

## **INSTRUCTIONS**

**There may be spare copies of some diagrams in case you need them.**

**THIS DIAGRAM BOOKLET MUST BE  
RETURNED WITH THE QUESTION PAPER  
AT THE END OF THE EXAMINATION.**

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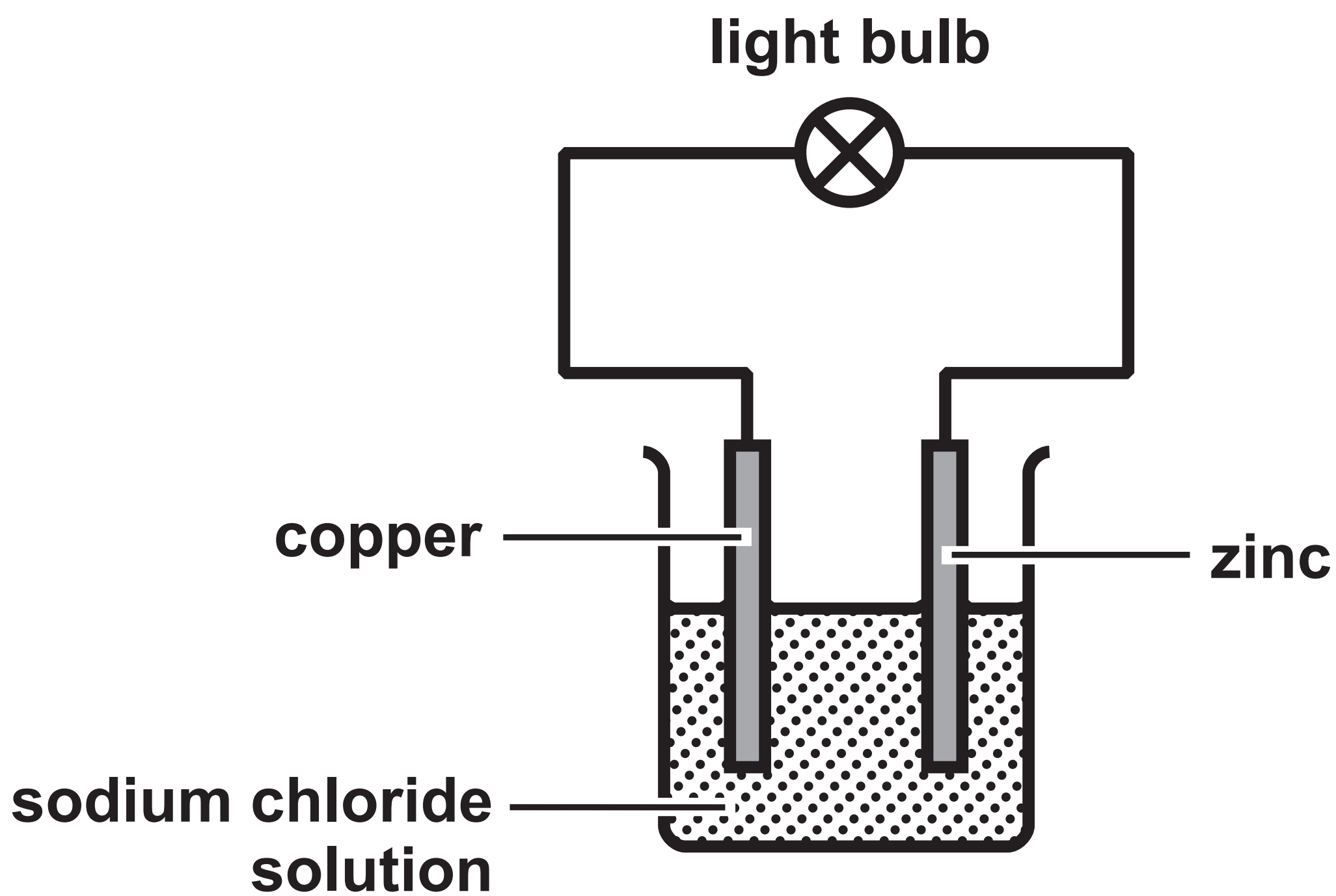
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## Question 1(a)

FIGURE 1



Question 2(a)

barium hydroxide	hydrochloric acid	barium chloride	water
<b>solid</b>	<b>aqueous</b>	<b>aqueous</b>	<b>liquid</b>
<b>solid</b>	<b>liquid</b>	<b>solid</b>	<b>aqueous</b>
<b>aqueous</b>	<b>aqueous</b>	<b>solid</b>	<b>liquid</b>
<b>aqueous</b>	<b>liquid</b>	<b>aqueous</b>	<b>aqueous</b>

☐ A

☐ B

☐ C

☐ D

**Question 2(b)**

- STEP 1** measure out  $50.0\text{ cm}^3$  of dilute hydrochloric acid into a beaker using a measuring cylinder
- STEP 2** use a glass rod to place a drop of the acid onto a piece of universal indicator paper and record the pH
- STEP 3** add  $0.2\text{ g}$  of barium hydroxide to the acid in the beaker and stir
- STEP 4** use the glass rod to place a drop of the mixture onto a new piece of universal indicator paper and record the pH again
- STEP 5** repeat steps 3–4 until there is no further change in the pH.

Question 2(b)(iv)

pH of the mixture


mass of barium hydroxide in g

**Question 2(b)(iv)**

**pH of the  
mixture**


**mass of barium hydroxide in g**



**Question 4(a)****FIGURE 3**

	<b>mass in g</b>
<b>mass of sucrose</b>	<b>100.00</b>
<b>mass of ethanol obtained from the reaction</b>	<b>8.07</b>
<b>theoretical mass of ethanol formed</b>	<b>53.80</b>

## Question 5(c)

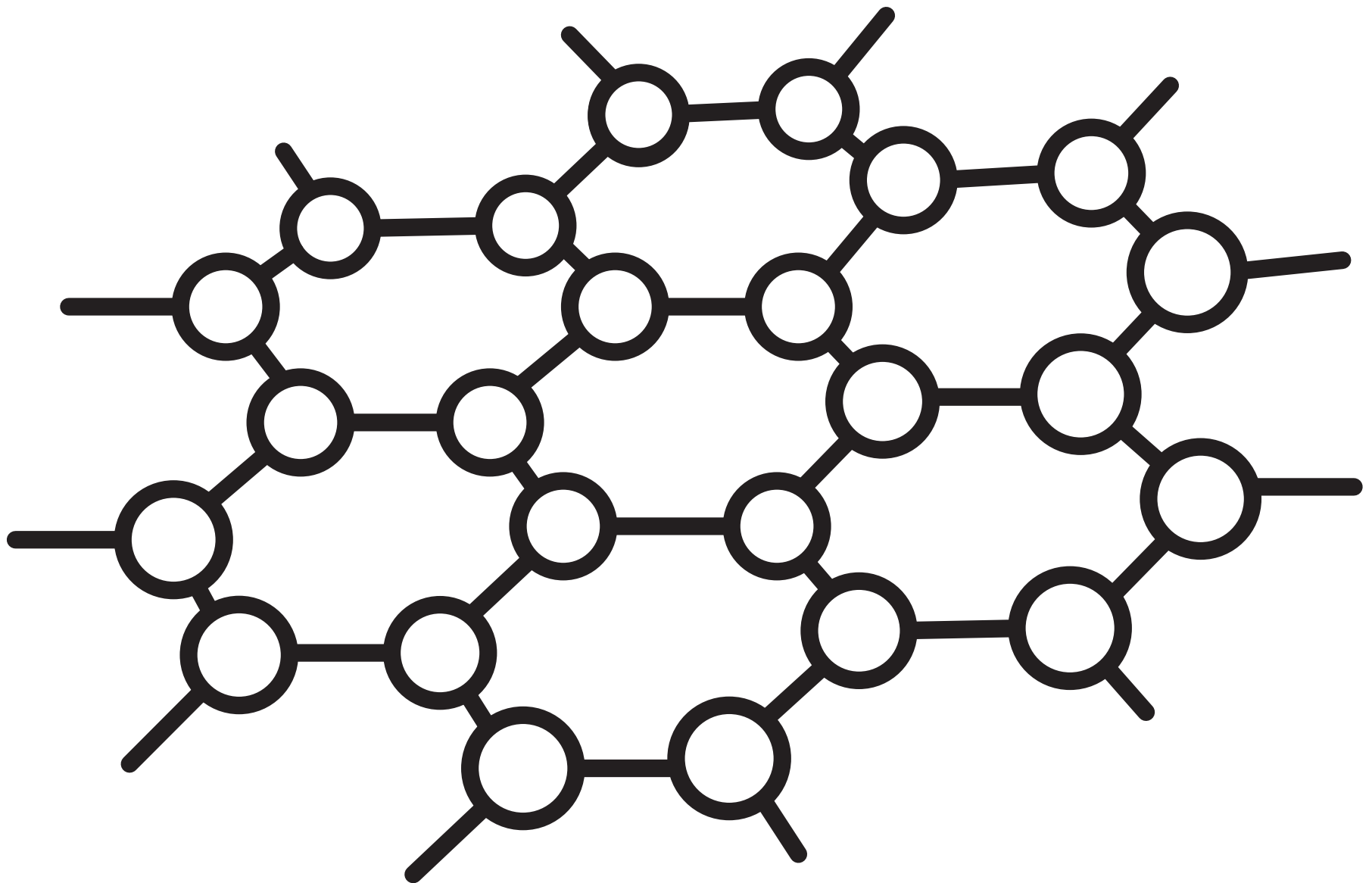
FIGURE 4

	electrodes	
	anode	cathode
mass of electrode before electrolysis in g	6·43	6·17
mass of electrode after electrolysis in g	5·62	6·95
change in mass in g	−0·81	+0·78

## Question 8(b)

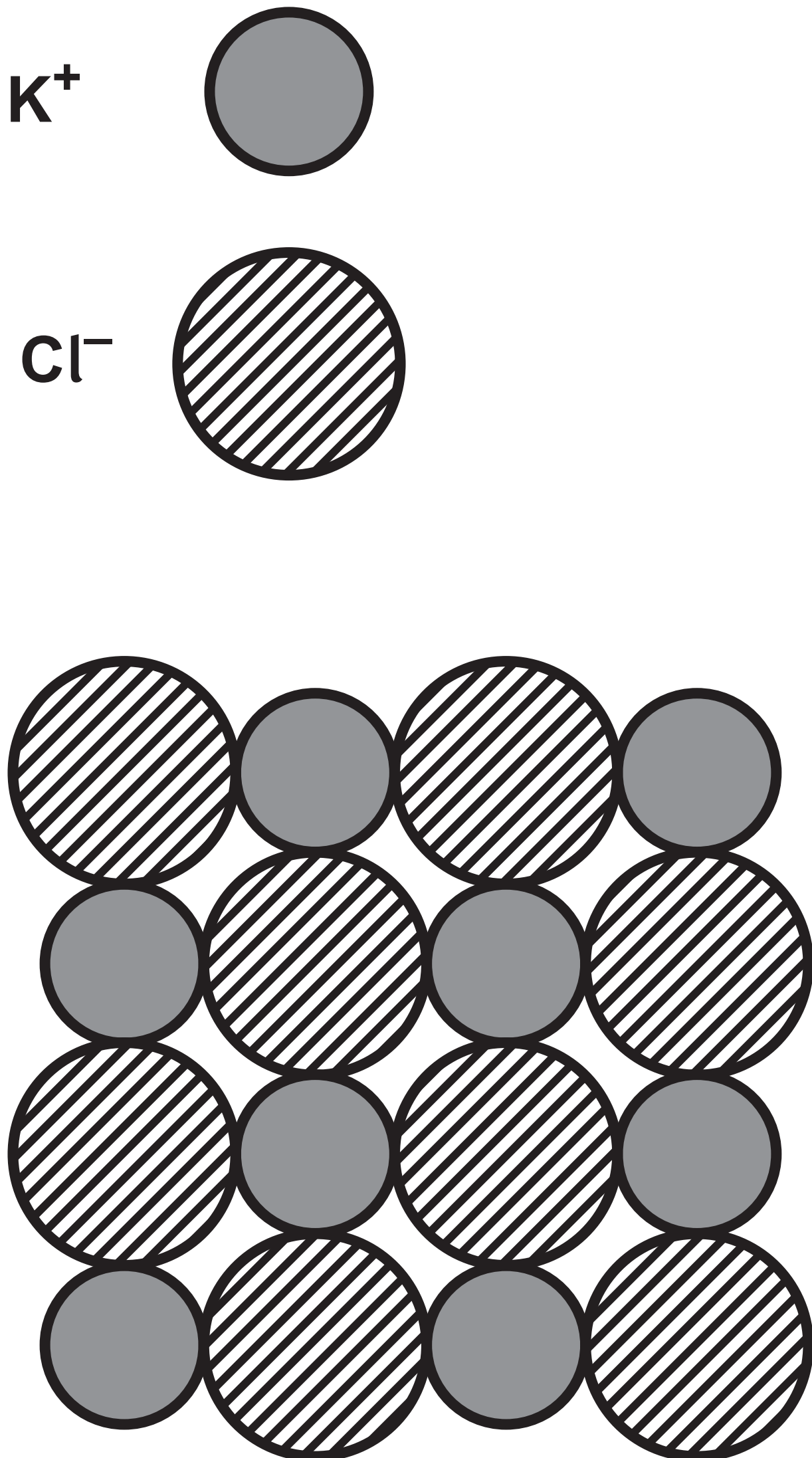
FIGURE 5

○ carbon atom



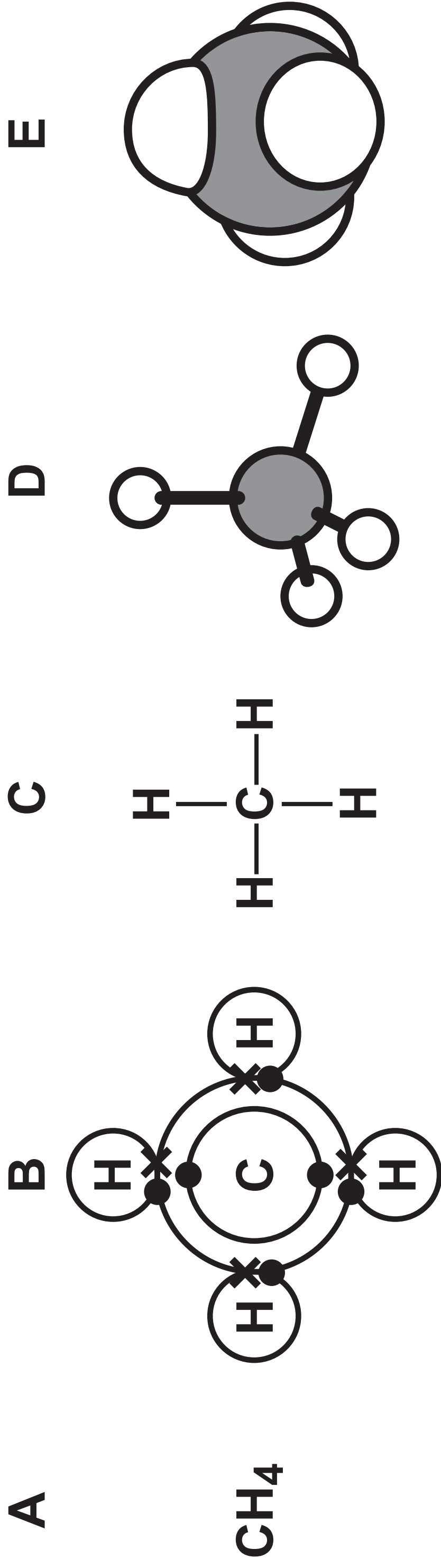
## Question 8(c)

FIGURE 6



Question 8(d)

FIGURE 7



## Question 9(a)(i)

FIGURE 8

<b>metal</b>	<b>observations with dilute hydrochloric acid</b>
<b>W</b>	<b>Bubbles formed quickly with some metal remaining after three minutes.</b>
<b>X</b>	<b>A few bubbles were seen to form. The metal looked unchanged after three minutes.</b>
<b>Y</b>	<b>Bubbles formed quickly. After three minutes all the metal had reacted.</b>
<b>Z</b>	<b>Bubbles formed very quickly with no metal remaining after three minutes.</b>

## Question 9(a)(i)

**least  
reactive**



**most  
reactive**

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## Question 9(a)(i)

**least  
reactive**



**most  
reactive**

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