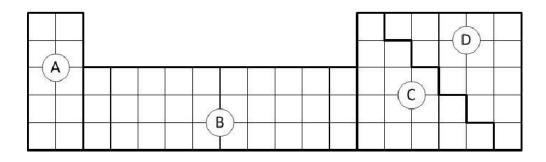
## 1. Gold is a transition metal.

Which part of the Periodic Table, A, B, C or D contains transition metals?



answer \_\_\_\_\_

[1]

2(a). About 150 years ago, Dimitri Mendeleev developed an early version of the Periodic Table.His Periodic Table had eight groups. He put elements with similar properties into the same group.

The table shows some of the elements that Mendeleev grouped together.

Mendeleev's groups									
1	2	3	4	5	6	7	8		
Li	Be	В	С	Ν	0	F	Fe		
Na	Mg	AI	Si	Р	S	CI	Co		
К	Zn				Cr	Br	Ni		
Cu									

Mendeleev put some of the transition metals into his Group 8.

He put some other transition metals into the other groups.

Give the symbols for three transition metals in Mendeleev's table that he did not put in Group 8.

1 -----

2 -----

3 -----

[2]

(b). The transition metals are in the same block of the modern Periodic Table because their properties are similar to each other.

Which property do all the transition metals have?

Tick  $(\checkmark)$  one box.

They act as catalysts in reactions.

They have low melting points and boiling points.

They react very quickly with cold water.

They are coloured gases at room temperature.

## END OF QUESTION PAPER

Question		n	Answer/Indicative content	Marks	Guidance
1			В√	1	
			Total	1	
2	а		In any order: Cu Zn Cr √√	2 (AO 2× 2.1)	ALLOW names IGNORE Fe Co Ni DO NOT ALLOW any other additional elements (apply list principle) All three correct = 2 marks Two or one correct = 1 mark Examiner's Comments A significant minority of candidates identified three elements in the modern group 8 which are not in Mendeleev's table (Ru, Os & Hs).
	b		They act as catalysts in reactions $\checkmark$	1 (AO 1.1)	
			Total	3	