

APOLLO

The periodic table: Classification of elements

SL

Chemistry

First assessment 2025

14 questions | mark schemes

Mark-scheme answers

Chemistry SL | Paper 1A | May 2025 TZ1 | Q14 | 1 marks

14. A

Chemistry SL | Paper 1A | May 2025 TZ1 | Q15 | 1 marks

15. A

Chemistry SL | Paper 1A | May 2025 TZ1 | Q16 | 1 marks

16. B

Chemistry SL | Paper 1A | May 2025 TZ2 | Q11 | 1 marks

11. B

Chemistry SL | Paper 1A | May 2025 TZ2 | Q12 | 1 marks

12. D

Chemistry SL | Paper 1A | May 2025 TZ3 | Q11 | 1 marks

11. B

Chemistry SL | Paper 1A | May 2025 TZ3 | Q13 | 1 marks

13. B

Chemistry SL | Paper 1A | Nov 2025 TZ1 | Q14 | 1 marks

14. A

Chemistry SL | Paper 1A | Nov 2025 TZ3 | Q11 | 1 marks

11. A

Chemistry SL | Paper 1A | Nov 2025 TZ3 | Q13 | 1 marks

13. A

1.	(a)			Accept x from 155–165 y from 500–700	1
1.	(b)		closer an electron is to the nucleus the greater the «electrostatic» attraction ✓	Accept smaller atomic radius for electron closer to the nucleus. Accept converse statement.	1
1.	(c)	(i)	inverse/negative «correlation» ✓	Do not accept inverse proportionality. Award [0] if linear relationship mentioned. Do not accept when AR increases IE decreases.	1

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1.	(c)	(ii)	similar trends / distribution of points ✓ as the period number increases the curve/distribution shifts down AND to the right OR as the period number increases the curve/distribution shifts to lower IE AND greater radius ✓	For M1 accept IE decreases as atomic radius increases .	2
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Question	Answers	Notes	Total
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Mark-scheme answers

Chemistry SL | Paper 1A | Specimen 2025 | Q13 | 1 marks

13. A

Chemistry SL | Paper 1A | Specimen 2025 | Q15 | 1 marks

15. C

3.	(a)	steeper gradient for Li OR curve/line for Li higher ✓		2
3.	(b)	equal masses «of different substances» do not contain equal amounts/moles ✓		1
3.	(c)	«Avg electronegativity = 1.8 Δ electronegativity = 1.6» % covalent character = 45-55 ✓ ionic ✓		2
3.	(d)	$[:C\equiv C:]^{2-}$ 2- charge ✓ $:C\equiv C:$ ✓		2

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Question	Answers	Notes	Total
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