

APOLLO

Electron-pair sharing reactions

SL

Chemistry

First assessment 2025

10 questions | mark schemes

Mark-scheme answers

Chemistry SL | Paper 1A | May 2025 TZ1 | Q28 | 1 marks

28. B

Chemistry SL | Paper 1A | May 2025 TZ1 | Q29 | 1 marks

29. C

Chemistry SL | Paper 1A | May 2025 TZ3 | Q29 | 1 marks

29. A

Chemistry SL | Paper 1A | Nov 2025 TZ1 | Q11 | 1 marks

11. D

Chemistry SL | Paper 1A | Nov 2025 TZ1 | Q30 | 1 marks

30. C

Chemistry SL | Paper 1A | Nov 2025 TZ3 | Q28 | 1 marks

28. B

Chemistry SL | Paper 1A | Nov 2025 TZ3 | Q30 | 1 marks

30. D

4.	(a)	nucleophilic substitution ✓	Accept S_N2 , but not S_N1 .	1
4.	(b)	curly arrow from lone pair or – to C ✓ curly arrow from bond to Br ✓ structural formulas of both organic reactant and product correct ✓	Do not accept condensed structural formulas. Do not penalize if a candidate has S_N1 mechanism if arrows are correctly placed.	3
4.	(c)	broken (C-Br)/285 AND formed (C-O)/358 OR broken (5(414)+346+285+463) / 3164 AND formed (5(414)+346+358+463) / 3237 ✓ «$\Delta H = \text{bond(s) broken} - \text{bond(s) formed} \Rightarrow -73 \text{ «kJ mol}^{-1}\text{»} \checkmark$	Award [2] for correct final answer. Award [1 max] for +73 «kJ mol⁻¹».	2

Question	Answers	Notes	Total
----------	---------	-------	-------

Mark-scheme answers

Chemistry SL | Paper 1A | Specimen 2025 | Q28 | 1 marks

28. A

Chemistry SL | Paper 1A | Specimen 2025 | Q30 | 1 marks

30. B