

2022 – Section 1

Question	Area of Course	Question Type	Grade A
1	Electromagnetic radiation and atomic spectra	Applying knowledge to new situations, interpreting, solving problems	
2	Transition metals	Applying knowledge to new situations, interpreting, solving problems	
3	Transition metals	Applying knowledge to new situations, interpreting, solving problems	
4	Transition metals	Knowledge and understanding - making statements	
5	Transition metals	Applying knowledge to new situations, interpreting, solving problems	1
6	Chemical equilibrium	Making predictions based on evidence/information	
7	Chemical equilibrium	Applying knowledge to new situations, interpreting, solving problems	
8	Reaction feasibility	Applying knowledge to new situations, interpreting, solving problems	
9	Kinetics	Applying knowledge to new situations, interpreting, solving problems	
10	Kinetics	Knowledge and understanding - making statements	
11	Reaction feasibility	Processing information (using calculations significant figures and units, where appropriate)	
12	Molecular orbitals	Applying knowledge to new situations, interpreting, solving problems	
13	Molecular orbitals	Applying knowledge to new situations, interpreting, solving problems	
14	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
15	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
16	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
17	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
18	Stereo chemistry	Processing information (using calculations significant figures and units, where appropriate)	
19	Stereo chemistry	Applying knowledge to new situations, interpreting, solving problems	
20	Experimental determination of structure	Applying knowledge to new situations, interpreting, solving problems	
21	Experimental determination of structure	Processing information (using calculations significant figures and units, where appropriate)	
22	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	
23	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	
24	Practical skills and techniques	Applying knowledge to new situations, interpreting, solving problems	1
25	Practical skills and techniques	Making predictions based on evidence/information	1

2022 – Section 2

Question	Area of Course	Question Type	Grade A
1(a)(i)	Atomic orbitals, electronic configurations and the periodic table	Knowledge and understanding - making statements	
1(a)(ii)	Atomic orbitals, electronic configurations and the periodic table	Applying knowledge to new situations, interpreting, solving problems	
1(b)	Atomic orbitals, electronic configurations and the periodic table	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	
1(c)	Non-specific	Processing information (using calculations significant figures and units, where appropriate)	
2(a)	Reaction feasibility	Applying knowledge to new situations, interpreting, solving problems	
2(b)	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	
2(c)	Transition metals	Applying knowledge to new situations, interpreting, solving problems	
2(d)(i)A	Kinetics	Applying knowledge to new situations, interpreting, solving problems	
2(d)(i)B	Kinetics	Applying knowledge to new situations, interpreting, solving problems	
2(d)(ii)	Kinetics	Applying knowledge to new situations, interpreting, solving problems	
3(a)	Chemical equilibrium	Knowledge and understanding - making statements	
3(b)(i)	Chemical equilibrium	Applying knowledge to new situations, interpreting, solving problems	
3(b)(ii)	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	2
3(b)(iii)	Atomic orbitals, electronic configurations and the periodic table	Applying knowledge to new situations, interpreting, solving problems	
4(a)(i)A	Practical skills and techniques	Knowledge and understanding - making statements	
4(a)(i)B	Practical skills and techniques	Planning or designing experiments	
4(a)(ii)	Chemical equilibrium	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	1
4(a)(iii)A	Practical skills and techniques	Planning or designing experiments	
4(a)(iii)B	Practical skills and techniques	Knowledge and understanding - making statements	
4(b)(i)	Experimental determination of structure	Knowledge and understanding - making statements	
4(b)(ii)	Experimental determination of structure	Selecting information	
4(c)(i)	Experimental determination of structure	Presenting information appropriately in a variety of forms	1
4(c)(ii)	Experimental determination of structure	Making predictions based on evidence/information	

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4(c)(iii)	Experimental determination of structure	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	2
4(d)	Chemical equilibrium	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	2
5(a)	Transition metals	Knowledge and understanding - making statements	
5(b)(i)	Atomic orbitals, electronic configurations and the periodic table	Knowledge and understanding - making statements	
5(b)(ii)A	Transition metals	Drawing valid conclusions and giving explanations supported by evidence/justification	
5(b)(ii)B	Transition metals	Applying knowledge to new situations, interpreting, solving problems	
5(b)(ii)C	Transition metals	Making predictions based on evidence/information	1
6(a)(i)	Molecular orbitals	Applying knowledge to new situations, interpreting, solving problems	1
6(a)(ii)	Molecular orbitals	Knowledge and understanding - making statements	
6(b)(i)	Stereo chemistry	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	1
6(b)(ii)	Synthesis	Making predictions based on evidence/information	
6(c)(i)	Molecular orbitals	Drawing valid conclusions and giving explanations supported by evidence/justification	
6(c)(ii)	Electromagnetic radiation and atomic spectra	Applying knowledge to new situations, interpreting, solving problems	
7(a)(i)	Gravimetric analysis	Planning or designing experiments	
7(a)(ii)	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	
7(b)(i)	Volumetric analysis	Knowledge and understanding - making statements	
7(b)(ii)	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	
7(b)(iii)	Molecular orbitals	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	1
8(a)	Synthesis	Processing information (using calculations significant figures and units, where appropriate)	1
8(b)(i)	Synthesis	Knowledge and understanding - making statements	
8(b)(ii)	Synthesis	Making predictions based on evidence/information	1
8(b)(iii)	Synthesis	Applying knowledge to new situations, interpreting, solving problems	

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8(b)(iv)	Synthesis	Processing information (using calculations significant figures and units, where appropriate)	1
8(b)(v)	Synthesis	Knowledge and understanding - making statements	
8(c)(i)	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
8(c)(ii)	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
8(d)(i)	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
8(d)(ii)	Stoichiometric calculations	Applying knowledge to new situations, interpreting, solving problems	
9	Synthesis	Demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	2
10(a)	Pharmaceutical chemistry	Knowledge and understanding - making statements	
10(b)(i)	Volumetric analysis	Planning or designing experiments	
10(b)(ii)	Non-specific	Processing information (using calculations significant figures and units, where appropriate)	1
10(b)(iii)	Non-specific	Processing information (using calculations significant figures and units, where appropriate)	
11(a)(i)	Synthesis	Applying knowledge to new situations, interpreting, solving problems	
11(a)(ii)	Pharmaceutical chemistry	Applying knowledge to new situations, interpreting, solving problems	
11(b)(i)A	Practical skills and techniques	Planning or designing experiments	2
11B(i)B	Chemical equilibrium	Applying knowledge to new situations, interpreting, solving problems	2
11(b)(ii)	Practical skills and techniques	Evaluating experiments and suggesting improvements	1
11(c)	Non-specific	Processing information (using calculations significant figures and units, where appropriate)	