2023 – Section 1

Question	Area of Course	Question Type	Grade A
1	Atomic orbitals, electronic configurations and the periodic table	applying knowledge to new situations, interpreting, solving problems	
2	Atomic orbitals, electronic configurations and the periodic table	knowledge and understanding - making statements	
3	Atomic orbitals, electronic configurations and the periodic table	applying knowledge to new situations, interpreting, solving problems	
4	Transition metals	knowledge and understanding - making statements	
5	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	
6	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	
7	Reaction feasibility	knowledge and understanding - making statements	
8	Reaction feasibility	applying knowledge to new situations, interpreting, solving problems	1
9	Reaction feasibility	applying knowledge to new situations, interpreting, solving problems	
10	Kinetics	applying knowledge to new situations, interpreting, solving problems	
11	Molecular orbitals	knowledge and understanding - making statements	
12	Molecular orbitals	applying knowledge to new situations, interpreting, solving problems	
13	Synthesis	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	Stereo chemistry	applying knowledge to new situations, interpreting, solving problems	
18	Stereo chemistry	processing information (using calculations significant figures and units, where appropriate)	
19	Experimental determination of structure	knowledge and understanding - making statements	
20	Pharmaceutical chemistry	knowledge and understanding - making statements	
21	Pharmaceutical chemistry	processing information (using calculations significant figures and units, where appropriate)	
22	Stoichiometric calculations	applying knowledge to new situations, interpreting, solving problems	
23	Volumetric analysis	applying knowledge to new situations, interpreting, solving problems	
24	Stoichiometric calculations	applying knowledge to new situations, interpreting, solving problems	
25	Stoichiometric calculations	processing information (using calculations significant figures and units, where appropriate)	1

2023 – Section 2

Question	Area of Course	Question Type	Grade A
1(a)(i)	Electromagnetic radiation and atomic spectra	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	
1(a)(ii)	Atomic orbitals, electronic configurations and the periodic table	applying knowledge to new situations, interpreting, solving problems	
1(a)(iii)(A)	Transition metals	applying knowledge to new situations, interpreting, solving problems	
1(a)(iii)(B)	Molecular orbitals	applying knowledge to new situations, interpreting, solving problems	
1(b)(i)(A)	Reaction feasibility	applying knowledge to new situations, interpreting, solving problems	
1(b)(i)(B)	Reaction feasibility	applying knowledge to new situations, interpreting, solving problems	
1(b)(i)(C)	Reaction feasibility	applying knowledge to new situations, interpreting, solving problems	
1(b)(ii)	Non-specific	processing information (using calculations significant figures and units, where appropriate)	
2(a)(i)	Kinetics	applying knowledge to new situations, interpreting, solving problems	
2(a)(ii)	Kinetics	applying knowledge to new situations, interpreting, solving problems	
2(b)	Kinetics	applying knowledge to new situations, interpreting, solving problems	
2(c)(i)	Kinetics	applying knowledge to new situations, interpreting, solving problems	
2(c)(ii)	Kinetics	applying knowledge to new situations, interpreting, solving problems	
3(a)(i)	Gravimetric analysis	planning or designing experiments	
3(a)(ii)	Gravimetric analysis	planning or designing experiments	1
3(b)	Stoichiometric calculations	applying knowledge to new situations, interpreting, solving problems	
3(c)	Gravimetric analysis	evaluating experiments and suggesting improvements	
4	Practical skills and techniques	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	2
5(a)	Transition metals	applying knowledge to new situations, interpreting, solving problems	
5(b)	Transition metals	applying knowledge to new situations, interpreting, solving problems	
5(c)(i)	Transition metals	applying knowledge to new situations, interpreting, solving problems	
5(c)(ii)	Transition metals	applying knowledge to new situations, interpreting, solving problems	
5(d)(i)	Transition metals	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	
5(d)(ii)	Transition metals	drawing valid conclusions and giving explanations supported by evidence/justification	1

Question	Area of Course	Question Type	Grade A
6(a)(i)	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	
6(a)(ii)	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	1
6(a)(iii)	Electromagnetic radiation and atomic spectra	applying knowledge to new situations, interpreting, solving problems	
6(b)(i)	Practical skills and techniques	planning or designing experiments	
6(b)(ii)	Stoichiometric calculations	applying knowledge to new situations, interpreting, solving problems	
6(c)	Synthesis	presenting information appropriately in a variety of forms	1
7(a)	Chemical equilibrium	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	1
7(b)(i)	Chemical equilibrium	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	
7(b)(ii)	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	
7(c)(i)	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	
7(c)(ii)	Chemical equilibrium	applying knowledge to new situations, interpreting, solving problems	1
7(d)(i)	Volumetric analysis	planning or designing experiments	2
7(d)(ii)	Volumetric analysis	planning or designing experiments	
8(a)(i)	Synthesis	processing information (using calculations significant figures and units, where appropriate)	
8(a)(ii)	Synthesis	making predictions based on evidence/information	
8(a)(iii)	Transition metals	knowledge and understanding - making statements	
8(b)(i)	Synthesis	applying knowledge to new situations, interpreting, solving problems	
8(b)(ii)	Synthesis	applying knowledge to new situations, interpreting, solving problems	
8(c)	Stoichiometric calculations	applying knowledge to new situations, interpreting, solving problems	1
9	Stereo chemistry	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	2

Question	Area of Course	Question Type	Grade A
10(a)(i)	Molecular orbitals	knowledge and understanding - making statements	
10(a)(ii)	Molecular orbitals	applying knowledge to new situations, interpreting, solving problems	
10(a)(iii)	Synthesis	processing information (using calculations significant figures and units, where appropriate)	
10(b)(i)	Synthesis	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	1
10(b)(ii)	Synthesis	applying knowledge to new situations, interpreting, solving problems	1
10(b)(iii)(A)	Stereo chemistry	knowledge and understanding - making statements	1
10(b)(iii)(B)	Stereo chemistry	applying knowledge to new situations, interpreting, solving problems	1
10(c)(i)	Synthesis	demonstrating knowledge and understanding of chemistry by providing descriptions and explanations and integrating knowledge	1
10(c)(ii)	Non-specific	presenting information appropriately in a variety of forms	
11(a)(i)	Synthesis	applying knowledge to new situations, interpreting, solving problems	
11(a)(ii)(A)	Synthesis	applying knowledge to new situations, interpreting, solving problems	1
11(a)(ii)(B)	Synthesis	applying knowledge to new situations, interpreting, solving problems	1
11(b)	Synthesis	applying knowledge to new situations, interpreting, solving problems	
11(c)	Synthesis	applying knowledge to new situations, interpreting, solving problems	
11(d)	Practical skills and techniques	planning or designing experiments	1
11(e)(i)(A)	Experimental determination of structure	drawing valid conclusions and giving explanations supported by evidence/justification	1
11(e)(i)(B)	Experimental determination of structure	evaluating experiments and suggesting improvements	1
11(e)(ii)(A)	Experimental determination of structure	processing information (using calculations significant figures and units, where appropriate)	
11(e)(ii)(B)	Experimental determination of structure	making predictions based on evidence/information	1
11(e)(iii)(A)	Experimental determination of structure	drawing valid conclusions and giving explanations supported by evidence/justification	1
11(e)(iii)(B)	Practical skills and techniques	planning or designing experiments	