

Multiple Choice Answers

Q13: A

Multiple Choice Answers

Q11: A

Q14: B

6(a)	halogen(s)
6(b)	fluorine / F ₂
6(c)	M1 solid M2 grey-black
6(d)(i)	Br ₂ + 2I ⁻ → 2Br ⁻ + I ₂ M1 I ⁻ as a reactant and Br ⁻ as a product M2 equation fully correct
6(d)(ii)	M1 343 M2 350 M3 -7
6(e)(i)	any two from:- • solid dissolves / solid disappears • bubbling / effervescence / fizzing • melts / forms a ball • floats • moves
6(e)(ii)	blue

2(a)	all experiments have a mass of 2.0 g of lithium chloride
	all temperatures and temperature changes recorded to 1 dp
	all five highest temperatures recorded correctly (27.0, 29.0, 30.5, 32.5, 35.5)
	all temperature changes calculated correctly (4.5, 6.5, 8.0, 10.5, 13.5)
2(b)	y-axis scale is linear and points extend over halfway up scale
	all points plotted correctly
	best fit line
2(c)	extrapolation shown on graph, this must be a smooth continuation of line to at least a volume of 45
	correct reading from their extrapolation at 45
	°C
2(d)	850.5 OR 851
2(e)	(temperature change approximately) doubled / 9 °C
	twice as much lithium chloride dissolved / used (so twice as much energy given out)
2(f)	polystyrene is a better insulator than glass / it is an insulator
	less heat loss (to the surroundings)
2(g)(i)	(burette more) accurate (than measuring cylinder)
2(g)(ii)	water-bath would keep temperature constant