Question number		Answer	Notes	Marks
1	a	reference to line/curve/temperature /graph/it AND not reached minimum / not constant / not level /not horizontal /still falling /decreasing/changing	Ignore reference to correlation Ignore has not reached zero / x-axis Ignore does not become	1
	b	(better) insulator (than glass) OR poor conductor (of heat)	Accept equivalents such as prevents heat from entering / keeps out heat better Allow stops heat escaping / traps heat Reject references to keeping temperature constant Ignore references to breaking glass	1
	c i	effervescence / fizzing / bubbles OR colourless solution/liquid formed	Accept carbon dioxide gas Accept gas given off/evolved/formed Ignore identity of gas Accept solid disappears/dissolves Ignore hissing and other sounds	1
	ii	Neutralisation	Accept acid-base / acid-alkali	1
		endothermic	M1 and M2 independent Accept answers in either order Do not penalise contradictions such as exothermic and endothermic – this answer is worth 1 mark	1

Question number	Answer	Notes	Marks
1 d i	product formulae or names / products (word) above reactants	Horizontal line not needed Ignore formula errors and one or two missing product(s) Ignore curves and intermediates	1
ii	(approximately) vertical line between reactants and products / between two levels AND labelled ΔH / energy change / heat change / enthalpy change	Ignore arrowheads on vertical line Ignore sign of ΔH Mark can be awarded for exothermic reaction Accept 2310 or any other number in place of ΔH	1

Question number	Answer	Notes	Marks
1 (e) i	temperature change = (–)5.5 (°C)	Award M1 for 5.5 anywhere	1
	heat change (= 100 × 4.2 × 5.5) = 2310/2300 (J)	CQ on candidate temperature change, provided other values correct Accept answer in kJ Ignore signs Correct final answer scores 2 2.31 (J) scores 1 mark if M1 not awarded	1
ii	concentration (of vinegar / (ethanoic) acid / CH_3COOH)	Ignore strength Ignore reference to M_r Accept concentration even if in an incorrect expression	1
		Total	**10**