Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY **0620/52**

Paper 5 Practical Test **March 2017**

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Marks
1(b)	initial and final readings completed correctly	**1**
	differences completed correctly	**1**
	all readings to 1 decimal place	**1**
	results comparable to the Supervisor's results	**1**
1(c)	blue to colourless	**1**
1(d)	neutralisation	**1**
1(e)(i)	solution **O**	**1**
	greater volume of acid was used in the titration	**1**
1(e)(ii)	five times as concentrated	**1**
1(f)	half volume / value from table for Experiment 2	**1**
	unit: cm^3	**1**
1(g)	effect on volume: no effect	**1**
	reason: temperature would only affect the rate	**1**
1(h)(i)	use a pipette / burette	**1**
1(h)(ii)	repeat experiments(and compare / average)	**1**

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Question	Answer	Marks
1(i)	**M1** ***fair test*** to equal volumes of each sodium hydroxide solution / solutions **O** and **P** add an equal volume / measured volumes of aqueous calcium chloride	**1**
	M2 ***dependent variable measured*** measure mass / height of precipitate formed / volume of calcium chloride used	**1**
	M3 ***conclusion*** the more concentrated sodium hydroxide solution would form the most precipitate (mass / height) / would require a smaller volume of calcium chloride	**1**

Question	Answer	Marks
2(a)	white (wet) (crystals)	**1**
2(b)(i)	white	**1**
	precipitate	**1**
2(b)(ii)	precipitate dissolves / clears / is soluble	**1**
2(c)(i)	white	**1**
	precipitate	**1**
2(c)(ii)	precipitate dissolves	**1**
2(d)	cream precipitate	**1**
2(e)	zinc	**1**
	bromide	**1**
2(f)	yellow	**1**
2(g)	no reaction / no change / precipitate	**1**

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Question	Answer	Marks
2(h)	yellow	**1**
	precipitate	**1**
2(i)	sodium	**1**
	iodide	**1**

Question	Answer	Marks
3(a)	any 4 from: **M1** measure initial temperature of (solid) ammonium chloride / barium hydroxide **M2** add barium hydroxide / ammonium chloride / other solid **AND** mix / stir **M3** use a thermometer **M4** measure the temperature of the mixture / final temperature **M5** temperature decreases / test-tube feels cold	**4**
3(b)	**M1** add (aqueous) sodium hydroxide (and warm)	**1**
	M2 gas produced turns (red) litmus blue	**1**

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