

EXOTHERMIC REACTIONS, ENDOTHERMIC REACTIONS & BOND ENERGIES 5

MARK SCHEME

Q1.

Question	Answer	Extra information	Marks
(i)	calcium carbonate → calcium oxide + carbon dioxide	allow CaCO ₃ either way round allow CaO + CO ₂ do not allow quick lime maximum 1 mark for unbalanced symbol equation	1 1
(ii)	thermal decomposition	accept endothermic do not accept reversible / equilibrium	1
Total marks			3

Q2.

Question	Answer	Extra information	Marks
(a)	nitrogen does not react carbon dioxide is a product of methane / fuel burning / reacting with oxygen carbon dioxide is a product of calcium carbonate decomposing (to produce calcium oxide)	allow nitrogen is not used up in the reaction accept oxygen in the air reacts with methane do not allow calcium carbonate reacts with oxygen	1 1 1
(b)	any two from: • water and calcium oxide / quicklime react • to produce calcium hydroxide / slaked lime • energy / heat released / exothermic	ignore mix ignore gets hot/heats up correct word equation = 2 marks	2
Total marks			5

Q3.

Question	Answer	Extra information	Marks
(a)	3		1
(b)	2		1
(c)	1		1
(d)	1		1
Total marks			4

Q4.

Question	Answer	Extra information	Marks
(a)	2		1
(b)	2		1
(c)	3		1
Total marks			3

Q5.

Question	Answer	Extra information	Marks
(a)	2		1
(b)	3		1
(c)	2		1
(d)	3		1
Total marks			4

Q6.

Question	Answer	Extra information	Marks
(a)	2		1
(b)	1		1
(c)	2		1
Total marks			3