

Q12.

Question Number	Acceptable Answer	Additional Guidance	Mark
(i)	<ul style="list-style-type: none">correct formulae and state symbols of each species	$\text{CaCO}_3(\text{s}) \rightarrow \text{CaO}(\text{s}) + \text{CO}_2(\text{g})$	(1)

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(ii)	<ul style="list-style-type: none">ionic and covalent (bonding)	Ignore reference to single/double/dative	(1)

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(iii)	<ul style="list-style-type: none">strong bonds within the carbonate ion / CO_3^{2-} /C-O bond / C=O bond	Ignore bonds between the ions / (Ca^{2+} and CO_3^{2-}) are strong	(1)