6(a)(i)	air	**1**
6(a)(ii)	methane	**1**
6(a)(iii)	**M1** 450 (°C) **M2** 200 (atm)	**2**
6(a)(iv)	iron	**1**
6(a)(v)	**M1** (a substance which) increases the rate of a reaction **M2** remains unchanged at the end of the reaction	**2**

Question	Answer	Marks
6(b)(i)	**temperature change:** **M1** low(er) rate (of reaction) **pressure change:** **M2** (position of) equilibrium shifts to the left hand side/ towards reactants	**2**
6(b)(ii)	**4**NO + **3**O_2 + **2**H_2O →.**4**HNO_3	**1**
6(c)(i)	$CuCO_3 + 2HNO_3 \rightarrow Cu(NO_3)_2 + CO_2 + H_2O$ **M1** $Cu(NO_3)_2$ **M2** correct equation	**2**
6(c)(ii)	**M1** undissolved solid **M2** effervescence stops on addition of more copper(II) carbonate	**2**
6(d)(iii)	copper(II) oxide **or** copper(II) hydroxide	**1**

Question	Answer	Marks