| Question number | | | Answer | Notes | Marks |
|---|---|---|---|---|---|
| 1 | a | | A (the crystal dissolves) | | 1 |
| | b | | A (it is all blue) | | 1 |
| | c | i | 4 | | 1 |
| | | ii | 21 | | 1 |

<table>
<tr><th colspan="3">Question number</th><th>Answer</th><th>Notes</th><th>Marks</th></tr>
<tr><td>2</td><td>(a)</td><td></td><td>
<table>
<tr><th>Substance</th><th>Element or compound</th><th>Type of bonding</th></tr>
<tr><td>ammonia</td><td>compound</td><td></td></tr>
<tr><td>hydrogen chloride</td><td>(compound)</td><td>covalent</td></tr>
<tr><td>oxygen</td><td>element</td><td>(covalent)</td></tr>
<tr><td>magnesium oxide</td><td>compound</td><td></td></tr>
</table>
</td><td>Ignore qualifiers for covalent, eg polar / dative<br><br>All 6 correct = 3 marks<br><br>5 or 4 correct = 2 marks<br><br>3 or 2 correct = 1 mark<br><br>1 or 0 correct = 0 marks</td><td>3</td></tr>
<tr><td></td><td>(b)</td><td></td><td>B (MgO)</td><td></td><td>1</td></tr>
<tr><td></td><td>(c)</td><td></td><td>B (g)</td><td></td><td>1</td></tr>
<tr><td></td><td></td><td></td><td></td><td>Total for Question 2</td><td>5</td></tr>
</table>