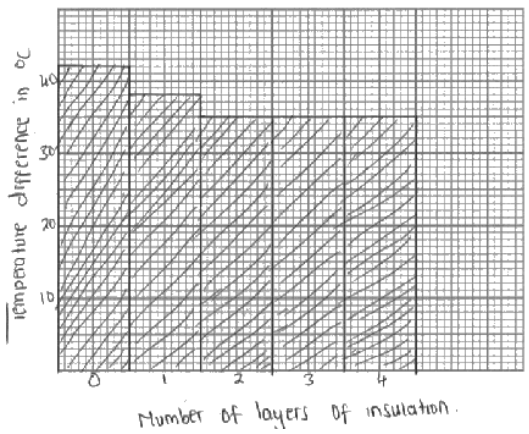
<table>
<tr><th>Question number</th><th>Answer</th><th>Notes</th><th>Marks</th></tr>
<tr><td>4 (a) (i)</td><td>number of layers (of insulation);</td><td></td><td>1</td></tr>
<tr><td>(ii)</td><td>final temperature (of the water) / temperature after 15 minutes / rate at which the water cools down;</td><td>allow temperature difference (of the water)
ignore unqualified ‘temperature’</td><td>1</td></tr>
<tr><td>(b) (i)</td><td>
<table>
<tr><th>Number of layers of insulation</th><th>Final temperature in °C</th><th>Temperature difference in °C</th></tr>
<tr><td>0</td><td>43</td><td>42</td></tr>
<tr><td>1</td><td>47</td><td>38</td></tr>
<tr><td>2</td><td>50</td><td>35</td></tr>
<tr><td>3</td><td>50</td><td>35</td></tr>
<tr><td>4</td><td>50</td><td>35</td></tr>
</table>
47 in first answer space;
50 in last three answer spaces;</td><td>must be seen in all three spaces</td><td>2</td></tr>
<tr><td>(ii)</td><td>suitable scale chosen – longest bar occupies at least half of the grid;

axes labelled correctly with quantities and temperature difference unit;
all 5 bars correctly plotted;;

 
</td><td>ignore orientation

temperature scale should be linear but need not start at 0

reject both plotting marks if a line graph is drawn

award 3 marks max. if graph is drawn using final temperature values instead of temperature difference values</td><td>4</td></tr>
</table>