

AQA Computer Science A-Level
4.3.1 Graph-traversal
Past Paper Mark Scheme

Specimen Paper 1

03	4	<p>All marks AO2 (apply)</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2" style="padding: 2px;">NoOfCats</th> <th colspan="5" style="padding: 2px;">Cat</th> </tr> <tr> <th style="padding: 2px;">A</th> <th style="padding: 2px;">B</th> <th style="padding: 2px;">C</th> <th style="padding: 2px;">1</th> <th style="padding: 2px;">2</th> <th style="padding: 2px;">3</th> <th style="padding: 2px;">4</th> <th style="padding: 2px;">5</th> </tr> </thead> <tbody> <tr><td style="padding: 2px;">5</td><td></td><td></td><td></td><td style="padding: 2px;">1</td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td style="padding: 2px;">2</td><td style="padding: 2px;">1</td><td style="padding: 2px;">1</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">1</td><td style="padding: 2px;">2</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">2</td><td></td><td></td><td style="padding: 2px;">2</td><td></td><td></td><td></td></tr> <tr><td></td><td style="padding: 2px;">3</td><td style="padding: 2px;">1</td><td style="padding: 2px;">1</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">1</td><td style="padding: 2px;">2</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">1</td><td style="padding: 2px;">3</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">3</td><td></td><td></td><td></td><td style="padding: 2px;">3</td><td></td><td></td></tr> <tr><td></td><td style="padding: 2px;">4</td><td style="padding: 2px;">1</td><td style="padding: 2px;">1</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">4</td><td></td><td></td><td></td><td></td><td style="padding: 2px;">1</td><td></td></tr> <tr><td></td><td style="padding: 2px;">5</td><td style="padding: 2px;">1</td><td style="padding: 2px;">1</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td style="padding: 2px;">5</td><td></td><td></td><td></td><td></td><td></td><td style="padding: 2px;">1</td></tr> </tbody> </table> <p style="margin-top: 10px;">Mark as follows: 1 mark: A is set the sequence indicated in the table; 1 mark: B is set the sequence indicated in the table; 1 mark: C is set the sequence indicated in the table; 1 mark: NoOfCats is set to 5, Cat [1] is set to 1; 1 mark: Cat [2] is set to 2 and Cat [3] is set to 3; 1 mark: Cat [4] is set to 1 and Cat [5] is set to 1;</p> <p style="margin-top: 10px;">Info for examiner: Ignore the empty cells in the sequences - values do not need to be set in the rows indicated in the table.</p>	NoOfCats	Cat					A	B	C	1	2	3	4	5	5				1						2	1	1								1	2								2			2					3	1	1								1	2								2									1	3								2									3				3				4	1	1								2									3									4					1			5	1	1								2									3									4									5						1	6
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03	5	<p>Mark is for AO2 (analyse)</p> <p>To work out which cats will travel together to the show // To plan which cats will be in the van on which journey to the cat show // To colour the vertices of a graph // To create a decomposition of a graph;</p> <p>Max 1</p>	1
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