
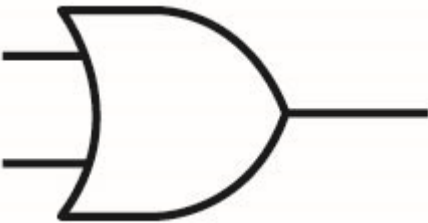


# Oxford Revise | OCR Computer Science | Answers

## Chapter 34 Electronic logic

| Question | Answer   | Extra information  | Marks             | AO / Specification reference |
|----------|--|--|-------------------|------------------------------|
| 1        | <p>AND</p>  <p>OR</p>  | <p>1 mark for each correct logic gate, with the correct number of inputs and outputs, up to 2 marks.</p> | <p>1</p> <p>1</p> | <p>AO1</p> <p>2.4.1</p>      |

| Question | Answer   | Extra information | Marks | AO / Specification reference |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
|----------|--|-------------------|-------|------------------------------|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|-------------------------|
| 2        | <p><b>NOT</b></p> <table border="1"> <thead> <tr> <th>A</th> <th>NOT A</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> </tr> <tr> <td>1</td> <td>0</td> </tr> </tbody> </table> <p><b>AND</b></p> <table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>A AND B</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> | A                 | NOT A | 0                            | 1 | 1 | 0 | A | B | A AND B | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | <p>1 mark for each correct truth table, up to 2 marks.</p> <p>Note: Each correct truth table must include the correct number of rows and columns. Other column headings may be used in this question, as none have been specified, but it must be obvious which are inputs and outputs. You are advised to list the rows in the order shown, but other orders that include all possible combinations are also acceptable.</p> | <p>1</p> <p>1</p> | <p>AO1</p> <p>2.4.1</p> |
| A        | NOT A  |                   |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| 0        | 1  |                   |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| 1        | 0  |                   |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| A        | B  | A AND B           |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| 0        | 0  | 0                 |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| 0        | 1  | 0                 |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| 1        | 0  | 0                 |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |
| 1        | 1  | 1                 |       |                              |   |   |   |   |   |         |   |   |   |   |   |   |   |   |   |   |   |   |   |                   |                         |

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|----------|--|--|-------------------|------------------------------|
| 3        | <p><b>OR gate:</b></p> <p>The output is TRUE if either or both of the inputs are TRUE, but FALSE if both inputs are FALSE.</p> <p><b>NOT gate:</b></p> <p>The output is TRUE if the input is FALSE and FALSE if the input is TRUE.</p> | <p>1 mark for each correct statement, up to 2 marks.</p> <p>Note: The answers given are examples. Other statements with the same meaning as these are also acceptable.</p> | <p>1</p> <p>1</p> | <p>AO1</p> <p>2.4.1</p>      |