* NOT Gate

|  |  |
| --- | --- |
| A | NA |
| 1 | 0 |
| 0 | 1 |

* NAND Gate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | B | NA | NB | NAND |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 |

* NOR Gate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | B | NA | NB | NOR |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |

* AND AND Gate

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| A | B | A and B | A and b AND C and D | C and D | C | D |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

* De Morgan’s Rules

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | A OR B | NOT A OR B |
| 0 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 |

==========

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | NA | NB AND NA | NB | B |
| 0 | 1 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | A and B | NOT A and B |
| 0 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 0 |

=============

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | NA | NA OR NB | NB | B |
| 0 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 |