|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cases | A | B | S1 | S0 |
| A (AND) | 00000001010101001101000101010000 | 11100011000000000100000000110111 | 0 | 0 |
| B  (OR) | 00000001010101001101000101010000 | 11100011000000000100000000110111 | 0 | 1 |
| C  (XOR) | 00000001010101001101000101010000 | 11100011000000000100000000110111 | 1 | 0 |
| D (NOT) | 00000001010101001101000101010000 | 11100011000000000100000000110111 | 1 | 1 |
| Cases | G |
| A | 00000001000000000100000000010000 |
| B | 11100011010101001101000101110111 |
| C | 11100010010101001001000101100111 |
| D | 11111110101010110010111010101111 |

Using the values of S0 and S1, AND, OR, XOR and NOT operations can be performed using the inputs A and B. In this case, A is the binary representation of my student number, 22335824, and B is a binary value chosen to show they affect of each operation.