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| **CLR** | CLR\_ADDR\_CT = ‘1’, notCLR\_REG = ‘0’ |
| **WR\_DATA\_TO\_RAM** | notOE\_RAM = ‘0’, notWE\_RAM = ‘0’, DIR\_IO\_BUF = ‘1’,  notOE\_IO\_BUF = ‘0’, notOE\_I\_BUF = ‘0’, M\_ALU = ‘1’, S\_ALU = “1111” |
| **INC\_ADDR\_DATA** | CLK\_UP\_CT = ‘1’ |
| **WR\_DATA\_TO\_REG** | notOE\_RAM = ‘0’, notWE\_RAM = ‘1’, S1\_REG = ‘1’, S0\_REG = ‘1’, M\_ALU = ‘1’, S\_ALU= “0101” |
| **INC\_DATA\_REG** | S1\_REG = ‘1’, S0\_REG = ‘1’, M\_ALU = ‘0’, S\_ALU= “1111”, CN\_ALU = ‘1’ |
| **DEC\_ADDR\_CT** | CLK\_DOWN\_CT = ‘1’ |
| **ADD\_REG\_WITH\_RAM** | notOE\_RAM = ‘0’, notWE\_RAM = ‘0’, notOE\_I\_BUF = ‘0’, M\_ALU = ‘0’, CN\_ALU = ‘0’, S\_ALU = “1001”, S1\_REG = ‘1’, S0\_REG = ‘1’ |
| **SHIFT\_REG** | S1\_REG = ‘1’, S0\_REG = ‘0’ |
| **WR\_REG\_TO\_RAM** | notOE\_RAM = ‘0’, notWE\_RAM = ‘0’, M\_ALU = ‘1’, S\_ALU = “1111” |
| **OUT\_DATA** | notOE\_RAM = ‘0’, notWE\_RAM = ‘1’, DIR\_IO\_BUF = ‘0’,  notOE\_IO\_BUF = ‘0’ |