|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | opCode | RegDst | RegWr | ExtOp | ALUSrc | MemRd | MemWr | WBdata | ALUop | Binary | Hex |
| R-type | 0 OR 1 | 01 = Rd | 1 | X | 0 = BusB | 0 | 0 | 0 = ALU | 0 – 7 | 01100000 | 60 |
| ANDI | 4 | 00 = Rt | 1 | 1 = sign | 1 = imm | 0 | 0 | 0 = ALU | 0 | 00111000 | 38 |
| CANDI | 5 | 00 = Rt | 1 | 1 = sign | 1 = imm | 0 | 0 | 0 = ALU | 1 | 00111000 | 38 |
| ORI | 6 | 00 = Rt | 1 | 1 = sign | 1 = imm | 0 | 0 | 0 = ALU | 2 | 00111000 | 38 |
| XORI | 7 | 00 = Rt | 1 | 1 = sign | 1 = imm | 0 | 0 | 0 = ALU | 3 | 00111000 | 38 |
| ADDI | 8 | 00 = Rt | 1 | 1 = sign | 1 = imm | 0 | 0 | 0 = ALU | 4 | 00111000 | 38 |
| NADDI | 9 | 00 = Rt | 1 | 1 = sign | 1 = imm | 0 | 0 | 0 = ALU | 5 | 00111000 | 38 |
| SLTI | 10 | 00 = Rt | 1 | 1 = sign | 1 = Imm | 0 | 0 | 0 = ALU | 6 | 00111000 | 38 |
| SLTUI | 11 | 00 = Rt | 1 | 1 = sign | 1 = Imm | 0 | 0 | 0 = ALU | 7 | 00111000 | 38 |
| SLL | 12 | 00 = Rt | 1 | 0 = zero | 1 = imm | 0 | 0 | 0 = ALU | 8 | 00101000 | 28 |
| SRL | 13 | 00 = Rt | 1 | 0 = zero | 1 = imm | 0 | 0 | 0 = ALU | 9 | 00101000 | 28 |
| SRA | 14 | 00 = Rt | 1 | 0 = zero | 1 = imm | 0 | 0 | 0 = ALU | 10 | 00101000 | 28 |
| ROR | 15 | 00 = Rt | 1 | 0 = zero | 1 = imm | 0 | 0 | 0 = ALU | 11 | 00101000 | 28 |
| LW | 16 | 00 = Rt | 1 | 1 = sign | 1 = Imm | 1 | 0 | 1 = Mem | X | 00111101 | 3d |
| SW | 17 | X | 0 | 1 = sign | 1 = Imm | 0 | 1 | X | X | 00011010 | 1a |
| BEQZ | 20 | X | 0 | 0 = zero | X | 0 | 0 | X | X | 00000000 | 0 |
| BNEZ | 21 | X | 0 | 0 = zero | X | 0 | 0 | X | X | 00000000 | 0 |
| BLTZ | 22 | X | 0 | 0 = zero | X | 0 | 0 | X | X | 00000000 | 0 |
| BGEZ | 23 | X | 0 | 0 = zero | X | 0 | 0 | X | X | 00000000 | 0 |
| BGTZ | 24 | X | 0 | 0 = zero | X | 0 | 0 | X | X | 00000000 | 0 |
| BLEZ | 25 | X | 0 | 0 = zero | X | 0 | 0 | X | X | 00000000 | 0 |
| JR | 26 | X | 0 | X | X | 0 | 0 | X | X | 00000000 | 0 |
| JALR | 27 | 10 = $7 | 1 | X | X | 0 | 0 | 1 = Mem | X | 10100001 | a1 |
| SET | 28 | 11 = $0 | 1 | X | X | 0 | 0 | 1 = Mem | X | 11100001 | e1 |
| SSET | 29 | 11 = $0 | 1 | X | X | 0 | 0 | 1 = Mem | X | 11100001 | e1 |
| J | 30 | X | 0 | X | X | 0 | 0 | X | X | 00000000 | 0 |
| JAL | 31 | 10 = $7 | 1 | X | X | 0 | 0 | 1 = Mem | X | 10100001 | a1 |