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| Comment/Remark | HEX | Assembly Instruction |
| R7 will have value of 0xFF | ff04 | ADDI R7, R0, 0xFF |
| R2 will have value of 0xFF | 1700 | ADD R2, R0, R7 |
| R7 will have value of 0xFE | ffe4 | ADDI R7, R7, -1 |
| R6 will have value of 1 | b2e0 | SLT R6, R7, R2 |
| R5 will have value of 1 | eae0 | SLTU R5, R7, R2 |
| R6 will have value of 0 | 36a1 | XOR R6, R5, R6 |
| R7 will have value of 1 | 7f40 | SUB R7, R2, R7 |
| R2 will have value of 0 | da01 | NOR R3, R0, R2 |
| R7 will have value of 0 | 7b01 | OR R7, R0, R3 |
| R6 will have value of 1 | 0ec9 | ORI R6, R6, 1 |
| R7 will have value of 1 | bea1 | AND R7, R5, R6 |
| R6 will have value of 2 | 37c2 | SLL R6, R6, R7 |
| R6 will have value of 1 | 77c2 | SRL R6, R6, R7 |
| R1 will have value of 0x1FE0 | 1ff7 | LUI 0xFF, R1 |
| R2 will have value of 0xE01F | 5140 | SUB R2, R2, R1 |
| R2 will have value of 0xF00F | 9742 | SRA R2, R2, R7 |
| R2 will have value of 0xF807 | d742 | ROR R2, R2, R7 |
| R3 will have value of 1 | 13c6 | SLTI R3, R6, 2 |
| R3 will have value of 0 | 03c7 | SLTIU R3, R6, 0 |
| R3 will have value of 1 | 0b68 | XORI R3, R3, 1 |
| R3 will have value of 0xD | 6b09 | ORI R3, R0, 0xD |
| R6 is still 1 | 0eca | ANDI R6, R6, 1 |
| R1 will have value of 0xFFFF | 010b | NORI R1, R0, 0 |
| R1 will have value of 0xFFFC | 112c | SLLI R1, R1, 2 |
| R1 will have value of 0x7FFE | 092d | SRLI R1, R1, 1 |
| R1 will have value of 0xFFFC | 092c | SLLI R1, R1, 1 |
| R1 will have value of 0xFFFE | 092e | SRAI R1, R1, 1 |
| R1 will have value of 0x7FFF | 092f | RORI R1, R1, 1 |
| R2 will have value of 0 | 2a30 | LW R2, 5, R1 |
| No register will change but memory address (0x7FFF + 0x5) will have value of 0 | 2a31 | SW R2, 5, R1 |
| R1 will have value of 0 | 0109 | ORI R1, R0, 0 |
| R2 will have value of 3 | 1a09 | ORI R2, R0, 3 |
| R3 will have value of 4 | 2309 | ORI R3, R0, 4 |
| R4 will have value of 6 | 3409 | ORI R4, R0, 6 |
| R5 will have value of 8 | 4509 | ORI R5, R0, 8 |
|  |  | LOOP: |
| Increment R1 | 0924 | ADDI R1, R1, 1 |
| Branch when R1 equal to R6 (1) | fe32 | BEQ R1, R6, LOOP |
| Branch when R1 less than R3 (4) | f334 | BLT R1, R3, LOOP |
| Branch when R4 (6) greater than R1 | e995 | BGE R4, R1, LOOP |
| Branch when R1 not equal to R5 (8) | e533 | BNE R1, R5, LOOP |

“All Instructions” instructions