

Homework : ASSEMBLER

CSE – 332(Computer Organization And Architecture)

Sec: 03  
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Submitted by :

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**A**

**R type:**

|  |  |  |  |
| --- | --- | --- | --- |
| OP (4 bit) | Rs (2 bit) | Rt (2 bit) | Rd (2 bit) |

**I type(j included):**

|  |  |  |  |
| --- | --- | --- | --- |
| OP (4 bit) | Rs (2 bit) | Rt (2 bit) | Immediate(2 bit) |

**Instruction Table**:

|  |  |
| --- | --- |
| Add | 0000 |
| Addi | 0001 |
| Sub | 0010 |
| Xor | 0011 |
| Nor | 0100 |
| Beq | 0101 |
| Slt | 0110 |
| Lw | 0111 |
| Sw | 1000 |
| J | 1001 |

|  |  |
| --- | --- |
| $t0 | 00 |
| $t1 | 01 |
| $s0 | 10 |
| $s1 | 11 |

**Register Table**:

**Sample Input**:

add $t2, $t1, $t0

sub $t0, $t2, $t1

xor $t1, $t2, $t0

beq $t2, $t0, 2

addi $t2, $t2, 3

sw $t1, 2($t0)

lw $t0, 0($t2)

j 3

**Output in Binary :**

0001 01 00 10

0010 10 01 00

0011 10 00 01

0101 10 00 10

0000 10 10 11

1000 10 01 10

0111 10 01 00

1001 00 00 11

**Output in Hexadecimal:**

52

A4

E1

162

2B

226

243