

| Reg | ID | Initial value |
|------|------|---------------|
| \$s0 | 0x10 | 0x00001000 |
| \$s1 | 0x11 | 0x00002000 |
| \$s2 | 0x12 | 0x00004000 |
| \$s3 | 0x13 | 0x0000FFF4 |
| \$t0 | 0x08 | 0x0000FFF8 |
| \$t1 | 0x09 | 0x00100010 |
| \$t2 | 0x0A | 0x00200020 |

Assume beq is at 0x40000000
and L is at 0x40000088

[1] What are the width (in bits) of the wires?

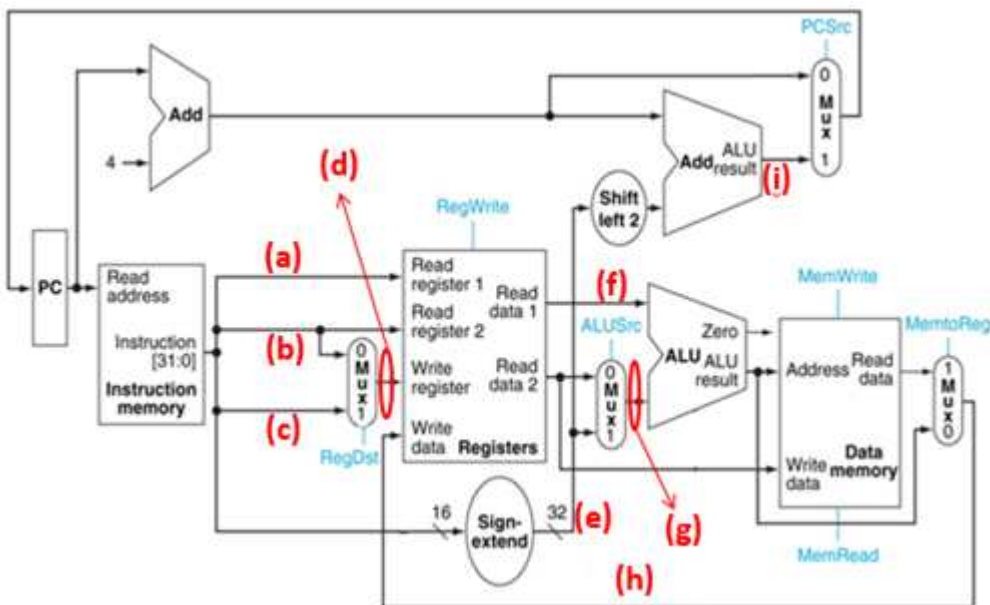
(a) (d) (f) (g) (h) (i)

What are the values on the datapaths when the following instructions are executed, respectively?

[2] add \$s0, \$s1, \$s2 (a) (b) (c) (d) (f) (g) (h)

[3] lw \$s3, -4(\$t0) (a) (d) (f) (g)

[4] beq \$t1, \$t2, L (a) (b) (e) (f) (g) (i)



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