Read register 1
Read register 2
Write register 1
Write register 2
ALU result
Instruction [25–21]
Instruction [20–16]
Instruction [15–0]
Instruction [15–11]
Instruction [5–0]
Memory data register
Memory
MemData
Write data
Read register 1
Read data 1
Read register 2
Read data 2
Write data
Sign extend
Shift left 2
MemtoReg
ALUSrcB
ALUOp
ALU control
IorD
MemRead
MemWrite
IRWrite
RegDst
RegWrite
ALUSrcA
ALU
ALUOut
Instruction [5–0]
Instruction [5–0]
Instruction [5–0]