CS270 Register Transfer Notation Name_____

AND R5, R2, #-2

MAR <- PC; PC <- PC + 1	# LD.MAR, GatePC, LD.PC, PCMUX
MDR <- Mem[MAR]	# LD.MDR, MIO.EN, MEM.EN, MEM.RW
IR <- MDR	# LD.IR, GateMDR
Reg[5] <- Reg[2] & Sext(IR[4:0]); CC <- Sign(Reg[2] & Sext(IR[4:0]))	# LD.REG, DR, GateALU, ALUK = &, SR1, SR2MUX, LD.CC

BRnp SubR

MAR <- PC; PC <- PC + 1	# LD.MAR, GatePC, LD.PC, PCMUX
MDR <- Mem[MAR]	# LD.MDR, MIO.EN, MEM.EN, MEM.RW
IR <- MDR	# LD.IR, GateMDR
PC <- PC + ((CC == N || CC == P) ? Sext(IR[8:0]) : 0)	# LD.PC, PCMUX, ADDR1MUX, ADDR2MUX

LEA R1, Var

MAR <- PC; PC <- PC + 1	# LD.MAR, GatePC, LD.PC, PCMUX
MDR <- Mem[MAR]	# LD.MDR, MIO.EN, MEM.EN, MEM.RW
IR <- MDR	# LD.IR, GateMDR
Reg[1] <- PC + Sext(IR[8:0]); CC <- Sign(PC + Sext(IR[8:0]))	# LD.REG, DR, GateMARMUX, MARMUX, ADDR1MUX, ADDR2MUX, LD.CC

STI R4, Dest

MAR <- PC; PC <- PC + 1	# LD.MAR, GatePC, LD.PC, PCMUX
MDR <- Mem[MAR]	# LD.MDR, MIO.EN, MEM.EN, MEM.RW
IR <- MDR	# LD.IR, GateMDR
MAR <- PC + Sext(IR[8:0])	# LD.MAR, GateMARMUX, MARMUX, ADDR1MUX, ADDR2MUX
MDR <- Mem[MAR]	# LD.MDR, MIO.EN, MEM.EN, MEM.RW
MAR <- MDR	# LD.MAR, GateMDR
MDR <- Reg[4] + 0	# LD.MDR, MIO.EN, GateMARMUX, MARMUX, ADDR1MUX, SR, ADDR2MUX
Mem[MAR] <- MDR	# MEM.EN, MEM.RW

AND R3, R1, R4

LDR R2, R1, #3

JMP R7

TRAP