

JALR ①F

IR ←

ALVOut ← PC + 4

②D

PC ← PC + s - e (imm)

③B

GPR[X1] ← ALVOut

JALR

④I

IR ←

ALVOut ← PC + 4

⑤D

From 2nd

s - e (imm)

⑥X

PC ← [GPR[rs1]

+ s - e (imm)] & -

⑦B

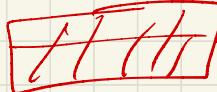
GPR ← ALVOut

Branch

- (IF) Instruction 읽어서 → control signal) 내뱉고 → PC+4 ALUout에 저장
- (ID) PC+sign-extend(Lmm) 끌기 & GPR 값 A,B에 저장하기
- (EX) GPR 값 비교 → 같았는 같지 PC에 넣기

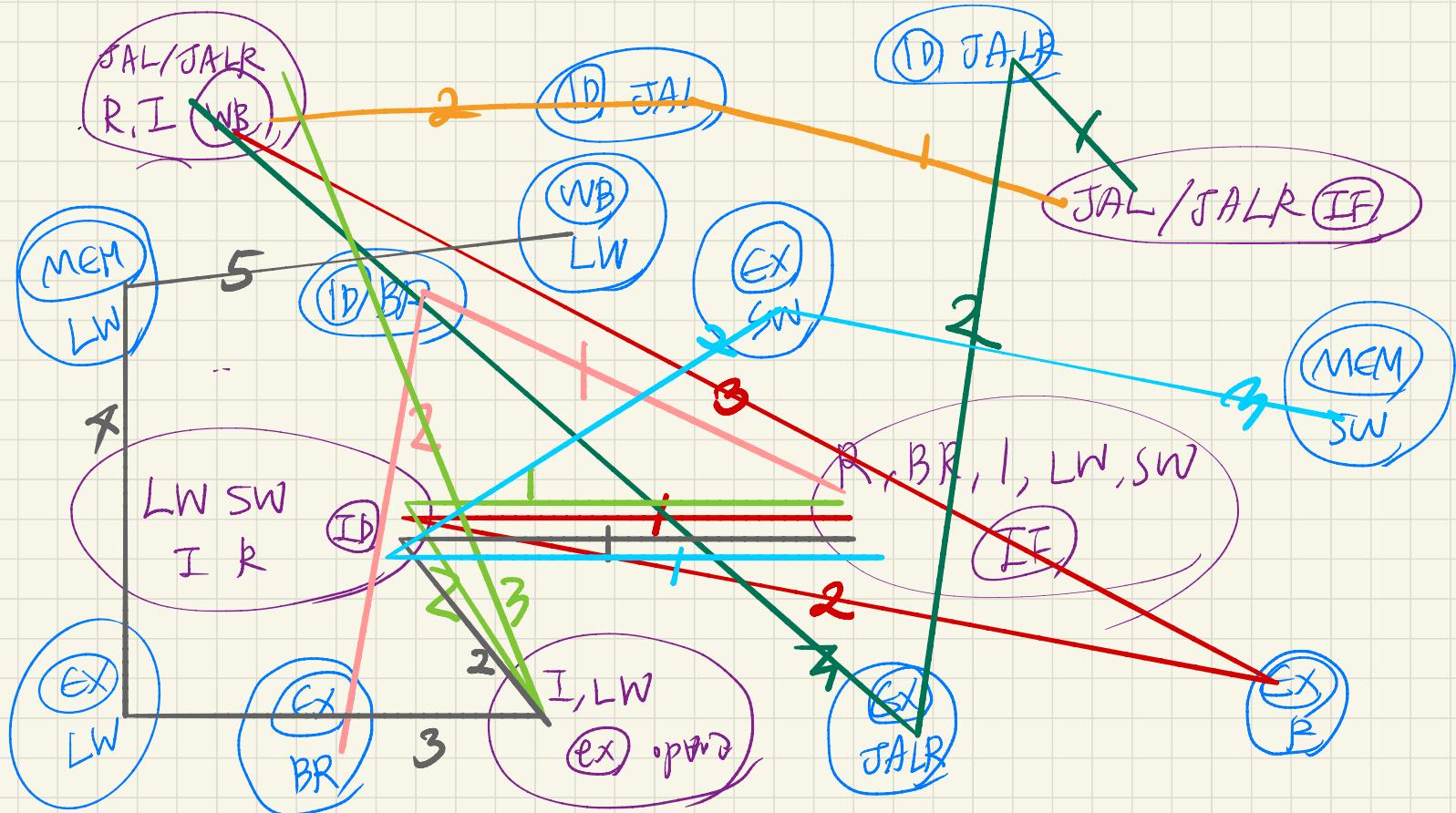


① JAL/JALR → RT₁₁

② RT → β_m ex) IF → 

③ state diagram $\Sigma \Pi \Gamma$.

④ 각 state에 맞는 control signal.



BR JAL R JALR I LW SW

|E

$R \leftarrow \text{MEM[PC]}$

$PC \leftarrow PC + 4$

|D

$A \leftarrow \text{RF[REG25:21]}$

|Ex

$ALUout \leftarrow Af \underbrace{s - e}_{\text{imm}} \oplus X.$

|NB

 $\leftarrow ALUout.$

