15:12 opcode 11:0 address

1.

IF:

PC = pc + 1, IR = M[PC]

2.

LDI: MDR = M[A(11:0)]

Jmp: pc = IR(11:0)

ROR: ALUout = A, C ror 1

TAT: T = A

STT: M[A(11:0)] = T

STA: M[IR(11:0)] = A

Rest of Instructions : MDR = M[IR(11:0)]

3.

ROR: A = ALUout

ADC: ALUout = A + MDR

XOR: ALUout = A xor MDR

SBC: ALUout = A - MDR

OR: ALUout = A or MDR

AND: ALUout = A and MDR

LDC: A = MDR

BCC: PC = MDR

BNE: PC = MDR

LDI: A = MDR

LDA: A = MDR

4.

ADC, XOR, SBC, OR, AND: A = ALUout