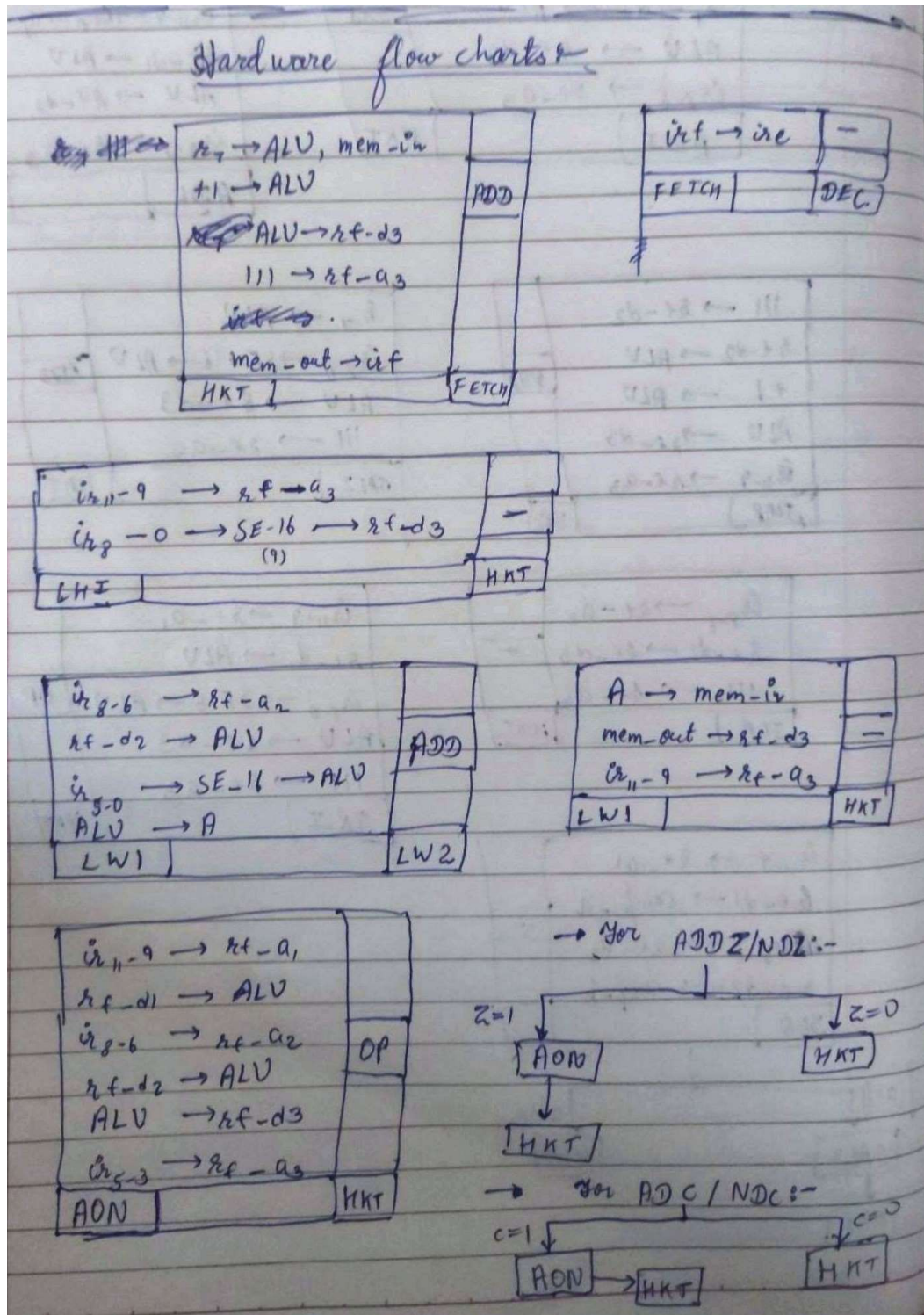


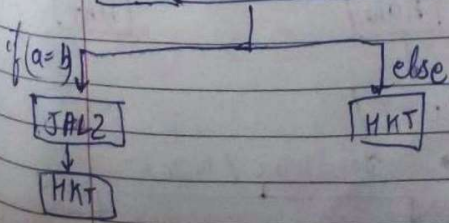
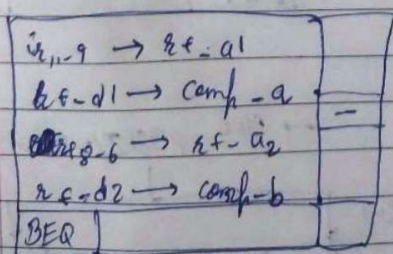
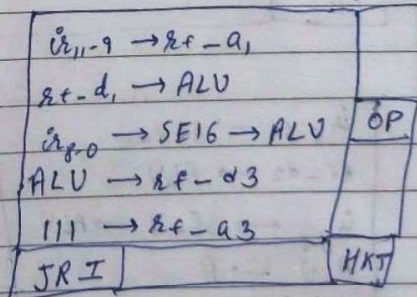
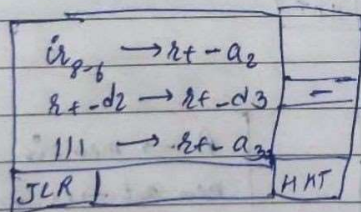
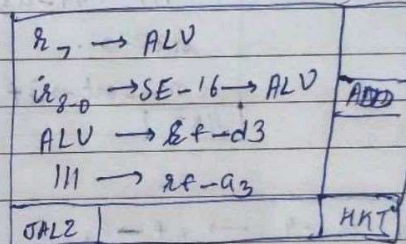
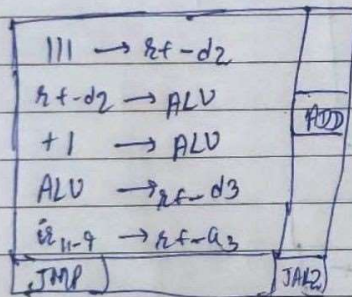
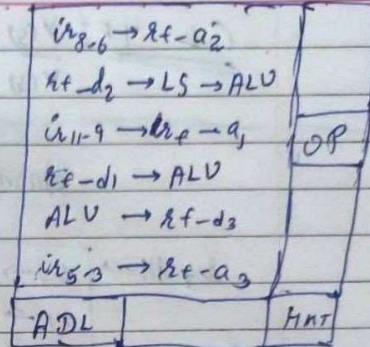
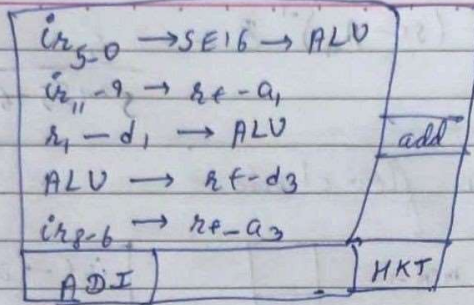


# EE309 IITB RISC MULTI-CYCLE PROCESSOR PROJECT

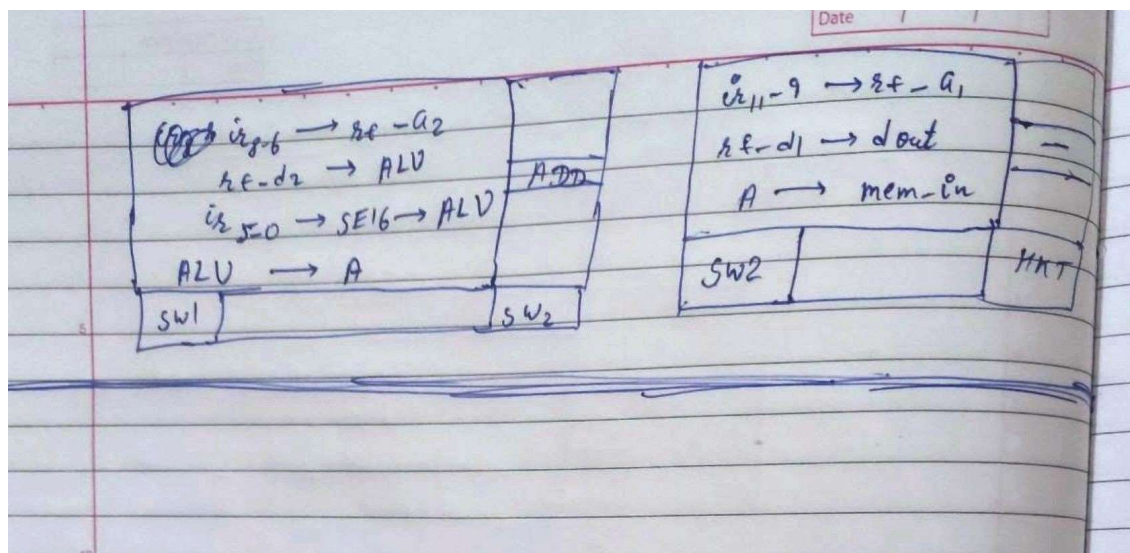
| Roll Number | Group Members            |
|-------------|--------------------------|
| 200070044   | Mudavath Vishnuvardhan   |
| 20D070077   | Siddhartha Shekhar Kusum |
| 20D070008   | Aksh Garg                |
| 200070042   | Jiten Mandwe             |

## • HARDWARE FLOW CHARTS:

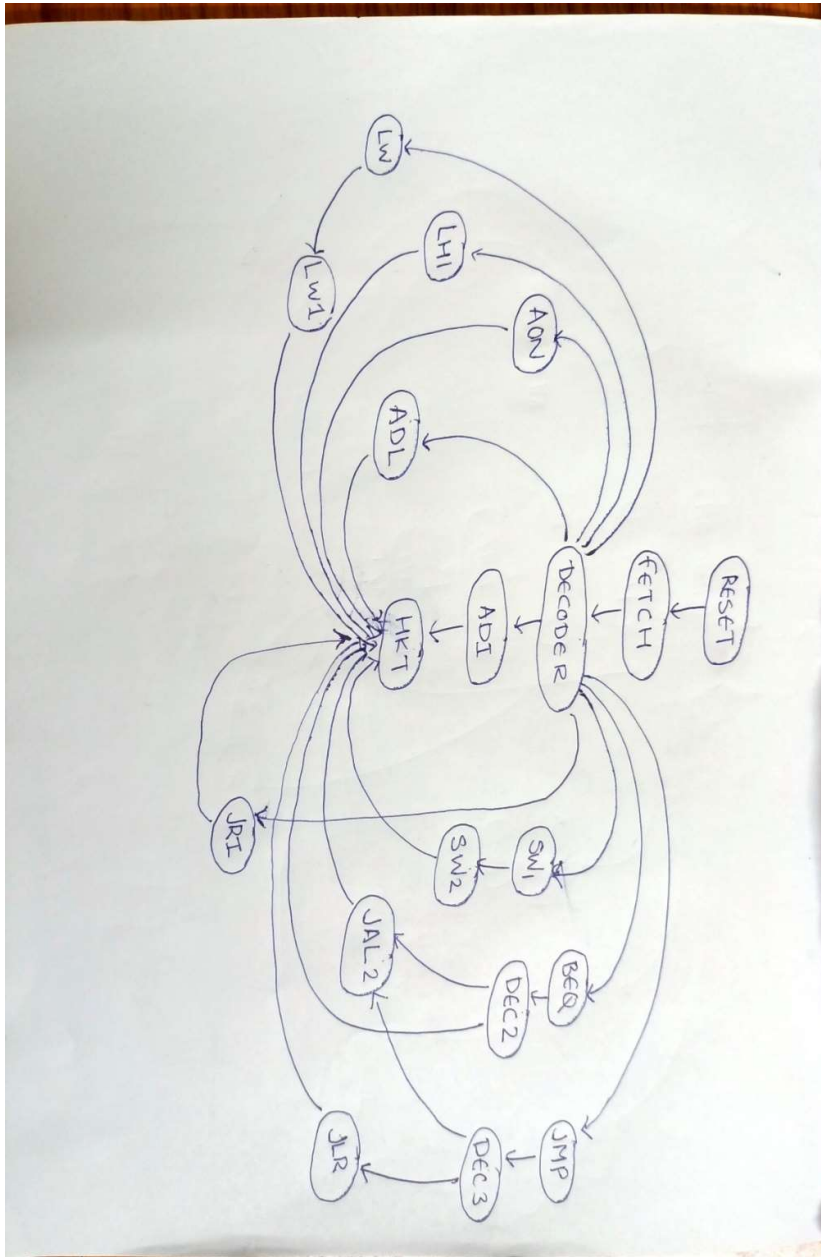


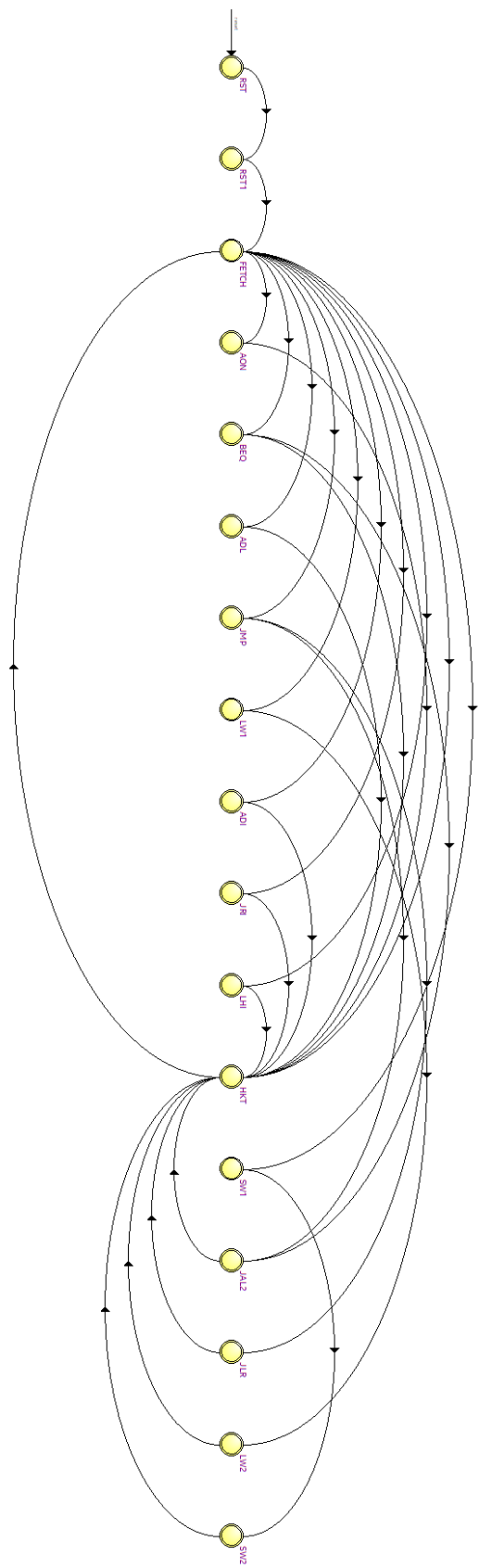




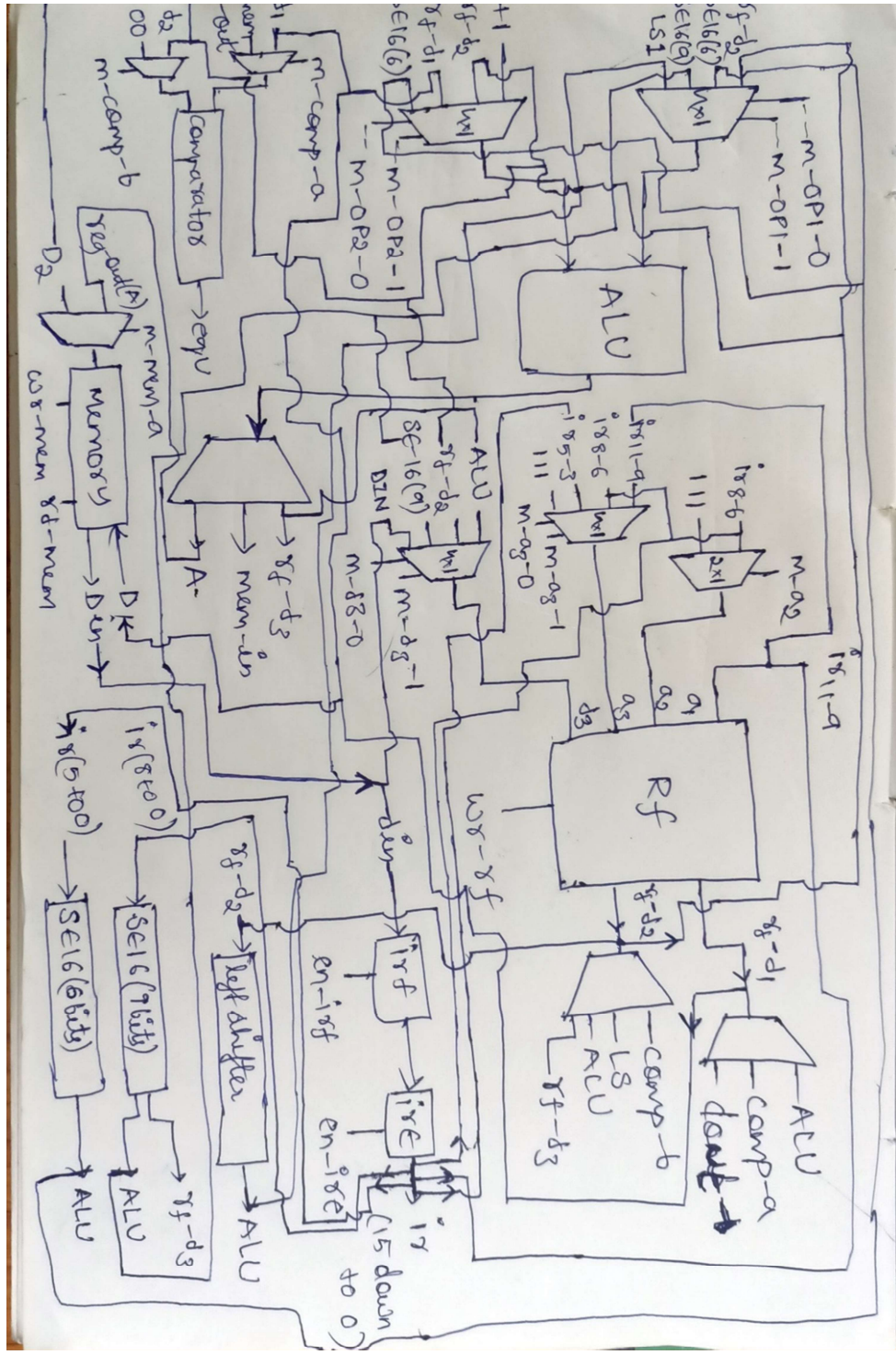


## ➤ FINITE STATE MACHINE :





## DATAPATH :



## ➤ **COMPONENTS USED IN THIS MICRO-PROCESSOR:**

1. ALU
2. MEMORY (128 K BYTES)
3. REGISTER FILE WITH 8 REGISTERS (16 BIT)
4. SIGN EXTENDER (6 BIT)
5. SIGN EXTENDER (9 BIT)
6. D- REGISTERS
7. 4 X 1 MULTIPLEXER
8. 2 X 1 MULTIPLEXER
9. D-FLIPFLOPS
10. LEFT SHIFTER (1 BIT)
11. COMPARATOR
12. INSTRUCTION REGISTER FETCH (IRF)
13. INSTRUCTION REGISTER EXECUTION (IRE)