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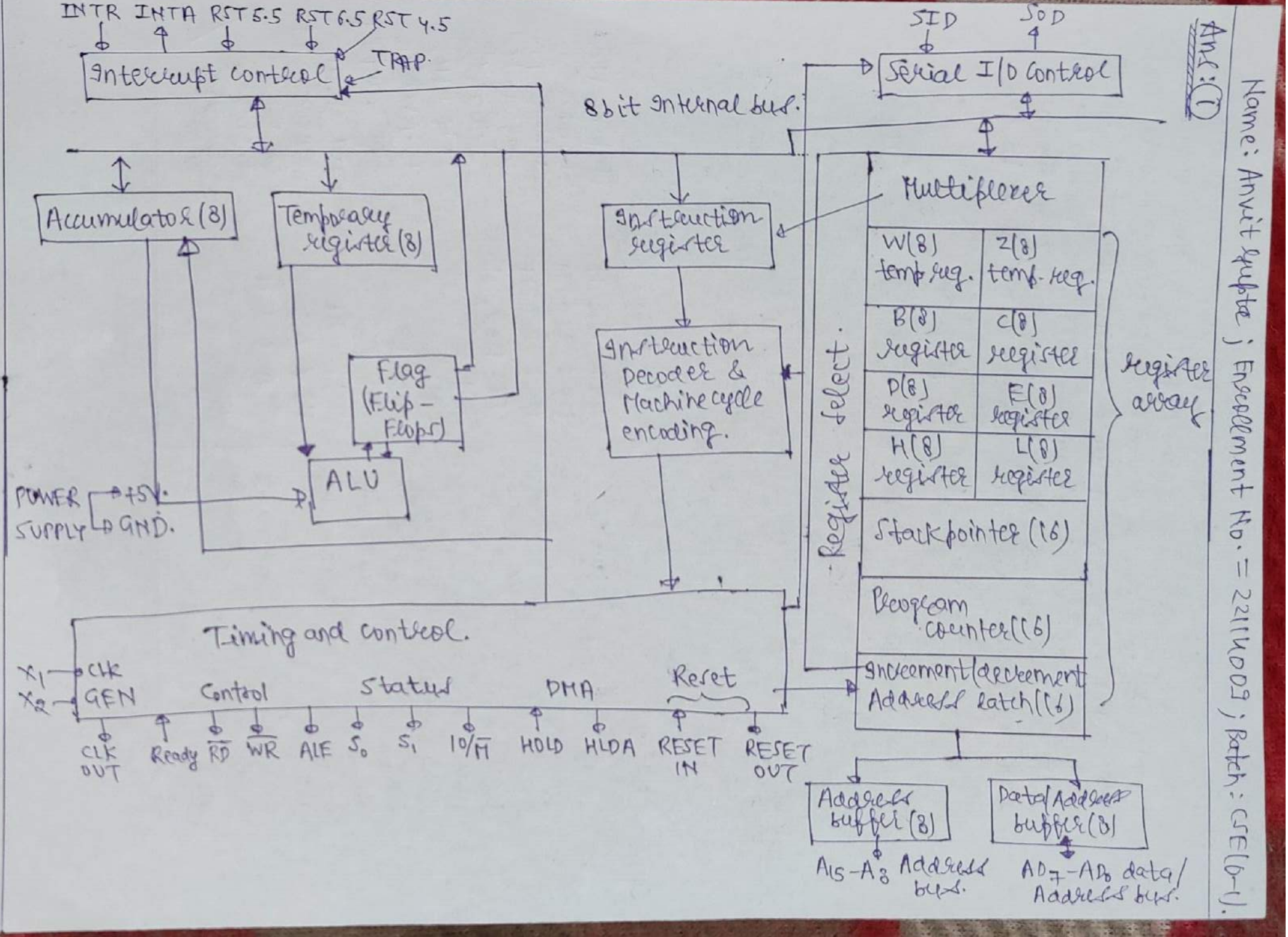
Ans:(1)



Solution: (2):-

```
MVI B,05 ..... -> B loaded to 05; means contains 05
MVI C,06 ..... -> C loaded to 06; means contains 06
MVI D,07 ..... -> D loaded to 07; means contains 07.
MOV A,B ..... -> A will contain now 05. after ins.
ADD C ..... -> A will contain 0B now. after ins.
ADD D ..... -> After this ins, A will contain 0F.
STA 8052H ..... -> will store result of 'A' to 8052H
                   memory location
HLT ..... -> Stops the program.
```

So 8052 memory location now contains 0F. Ans

Solution: 3:-

```
MVI A, EFH
STA 0000H
HLT
```

} This is direct accessing method.

Solution: (4):-

```
LDA 0000H   ; Number
MOV B,A     ; is stored
ANI 0FH     ; at 0000
MOV C,A     ; memory
MOV A,B     ; location
ANI F0H     ; and
RRC         ; sum of
RRC         ; digits
RRC         ; will get
RRC         ; stored at
ADD C       ; 0009
STA 0009H   ; memory
HLT.        ; location.
```

Solution: (6):-

```
MVI A,09H
MVI L,01H
MVI D,00H
CAP: MOV C,L
INR L
INR L
INR D
SUB C
JNZ CAP
MOV A,D
STA 0013H
HLT.
```

[Taking the number (whose sq.rt. have to be calculated) to be 09H, as given in the example]

(and storing square root in 0013 memory location.)

Solution: (5)

The microprocessor interprets the first byte as Opcode always. and second and third byte (if present) as data. In this way, it will differentiate them off.

Solution (7):-

```
MVI A,05H } OR LDA 0000H
MOV L,A
MOV D,A
DCR L
CAM: MOV D,L
MOV E,A
DCR D
DAN: ADD E
DCR D
JNZ DAN
DCR L
JNZ CAM
STA 0013H
HLT
```

⇒ "data stored at 0000H and finally storing factorial value at 0013H memory location".

Solution: 8:-

```
LDA 0001H
MOV B,A
LDA 0000H
ADC B
STA 0011H
MVI A,00H
ADC A
STA 0010H
HLT
```

Solution: (9):-

```
LDA 0000H
CMA
STA 0010H
HLT.
```

Solution: (10) :-

```
LDA 0000H
MOV B, A
LDA 0001H
CMP B
JC smaller
MOV A, B
smaller: STA 0010H
HLT.
```