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Exam #2

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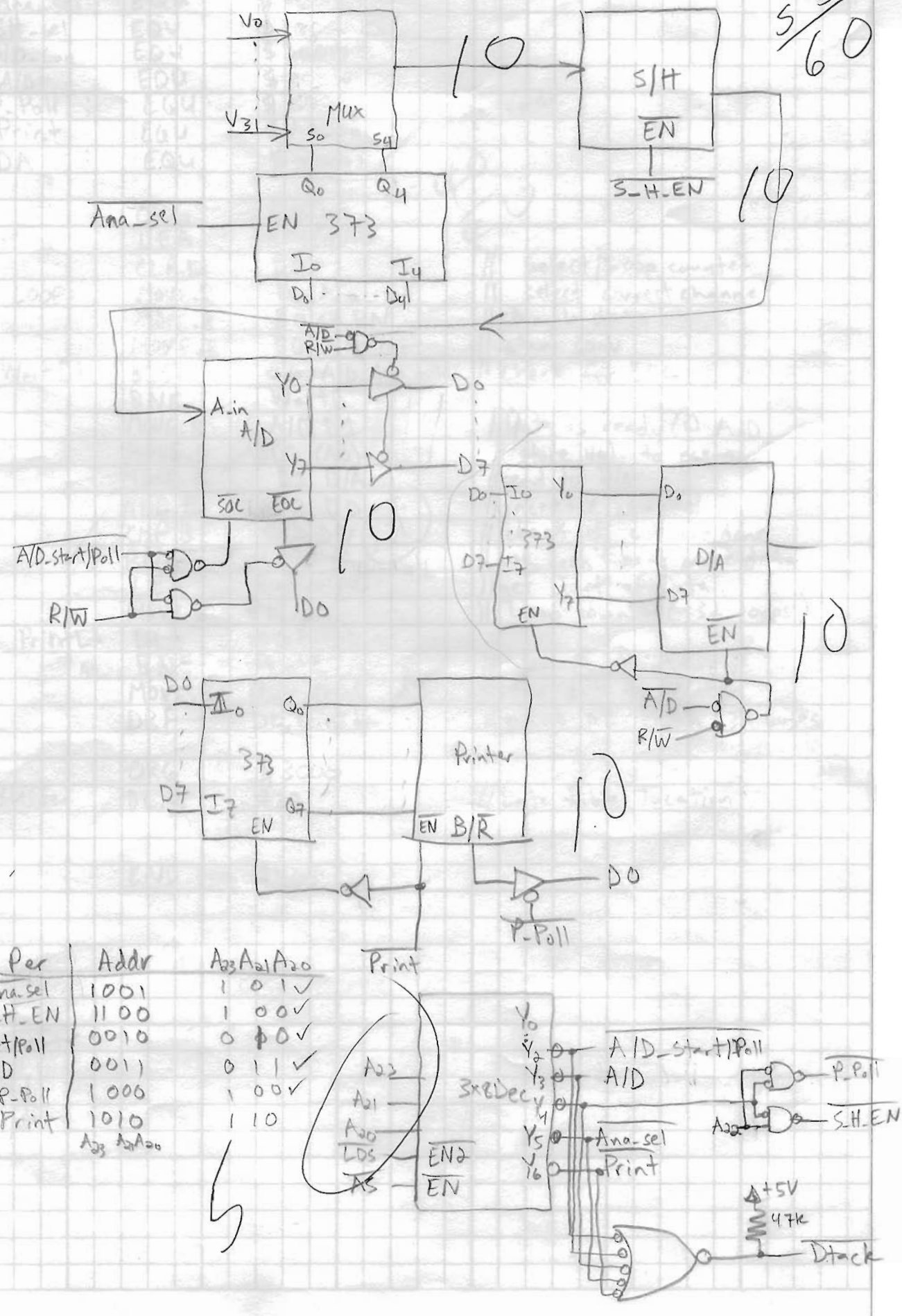
11/18/04

5/5/60

A)



Per	Addr	$A_{23}A_{21}A_{20}$	
Ana_sel	1001	1 0 1	✓
S_H_EN	1100	1 0 0	✓
A/D_Start/Poll	0010	0 0 0	✓
A/D	0011	0 0 1	✓
P_Poll	1000	1 0 0	✓
Print	1010	1 0 1	

A_{23} $A_{21}A_{20}$

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11/15/04

B)

```
Ana_sel:  EQU   $900001
SH_sel    EQU   $C00001
A/D_Con   EQU   $200001
A/D       EQU   $300001
P_Poll :  EQU   $800001   } same addr.
Print  :  EQU   $A00001   }
DA     :  EQU   $300001   }

          ORG   $400
          LEA   Buffer,A0
          CLR.L D0              // Select/Loop counter
LOOP:     MOVE.B D0,Ana_sel     // select correct channel
          MOVE.B #0,SH_EN       // sAmple data
          MOVE.B #0,A/D_Con     // start conv
WaitD:    BTST  #0,A/D_Con      // check for EOC
          BNE   WaitD
          MOVE.B A/D,D1         //Data is ready @ A/D
          MOVE.B D1,(A0)+       // store val. to mem.
          MOVE.B D1 D/A         //send to D/A
          ADD.B  #1,D0          // increase channel #
          CMP.B  #32,D0         // check if we ere done
          BNE    LOOP           // we aren't get more data
          LEA    Buffer,A0      //get start of Data
          MOVE.B #31,D0         // Loop counter (32 loops)
PrintL:   Btst   #0,P_Poll
          BNE    PrintL         // Wait for Printer
          MOVE.B (A0)+,Print    //send data to printer
          DBF    D0,PrintL      // print all Data (32 bytes)

          ORG    $3000
Buffer:   DC.B   #32            // Data table location

          END    $400
```