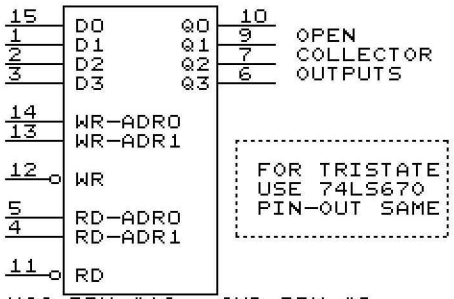
FILE= ICPINS5.DRG HW.CSE.IIT.KGP 26-AUG-02

MAKE NO MARK SHEET— 5

74LS170

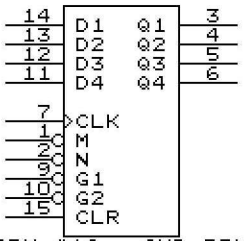
4 X 4 REGISTER FILE 2-PORT



VCC PIN #16 GND PIN #8

74LS173

QUAD TRISTATE D LATCH
POSITIVE EDGE TRIGGERED
INPUT ENABLE : $\overline{G1} = \overline{G2} = LO$
OUTPUT ENABLE: $\overline{M} = \overline{N} = LO$

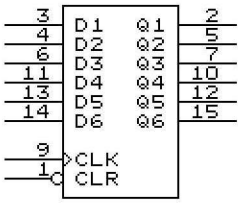


VCC PIN #16 GND PIN #8

74LS174

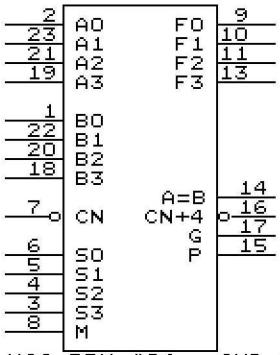
HEX D LATCH

+VE EDGE TRIG



VCC PIN #16
GND PIN #8

74LS181



VCC PIN #24 GND PIN #12

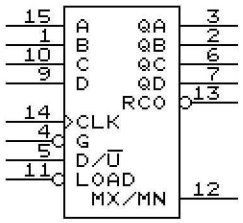
FUNCTION TABLE

S3	S2	S1	SO	M=HI	M=LO
0	0	0	0	$\overline{A}$	A
0	0	0	1	$\overline{A+B}$	A+B
0	0	1	0	$\overline{A}.B$	A+B
0	0	1	1	0000	1111
0	1	0	0	$\overline{A}.B$	A PLUS $A\overline{B}$
0	1	0	1	B	(A+B) PLUS $A\overline{B}$
0	1	1	0	$A \oplus B$	A MINUS B MINUS 1
0	1	1	1	$A.\overline{B}$	$A\overline{B}$ MINUS 1
1	0	0	0	$\overline{A+B}$	A PLUS AB
1	0	0	1	$\overline{A \oplus B}$	A PLUS B
1	0	1	0	B	$(A+\overline{B})$ PLUS AB
1	0	1	1	A.B	AB MINUS 1
1	1	0	0	1111	A PLUS A
1	1	0	1	$A+\overline{B}$	$(A+\overline{B})$ PLUS A
1	1	1	0	$A+\overline{B}$	$(A+\overline{B})$ PLUS A
1	1	1	1	A	A MINUS 1

74LS191

SYNCHRONOUS 4-BIT
UP/DOWN COUNTER

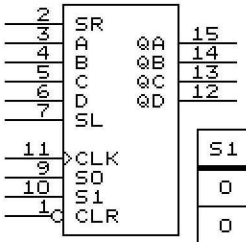
$\overline{G}$ = HI FOR INHIBIT
RCO= RIPPLE CLOCK OUT
MX/MN= RIPPLE CARRY OUT



VCC PIN #16 GND PIN #8

74LS194

4-BIT PIPO LEFT/RIGHT SHIFTER

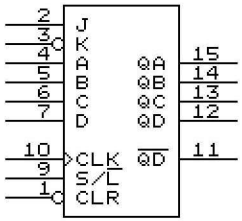


VCC PIN #16
GND PIN #8

S1	SO	FUNCTION
0	0	NOP
0	1	L-SHIFT
1	0	R-SHIFT
1	1	PAR-LOAD

74LS195

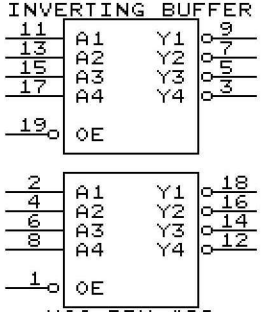
4-BIT PIPO SHIFTER
J,K = SERIAL IN



VCC PIN #16
GND PIN #8

74LS240

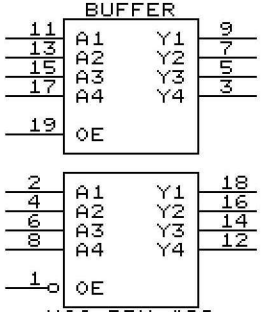
DUAL 4-BIT TRISTATE
INVERTING BUFFER



VCC PIN #20
GND PIN #10

74LS241

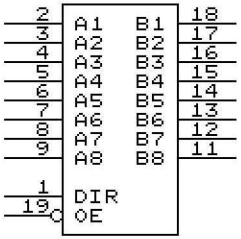
DUAL 4-BIT TRISTATE
BUFFER



VCC PIN #20
GND PIN #10

74LS245

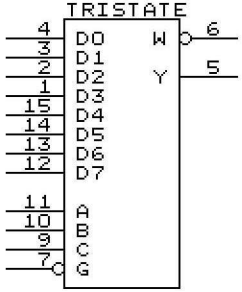
OCTAL TRISTATE
TRANSCEIVER



VCC PIN #20
GND PIN #10

74LS251

8-TO-1 MUX
TRISTATE



VCC PIN #16
GND PIN #8