

Chapter 3

6. a) Register Direct    b) Immediate    c) Implicit    d) Immediate    e) Immediate

9. a) AC = 11    b) AC = 12    c) AC = 10    d) AC = 11    e) AC = 10    f) AC = 33    g) AC = 41

13.	a)	MUL T,A,B	b)	MOV T,A	c)	LOAD A	d)	PUSH A
		MUL T,T,C		MUL T,B		MUL B		PUSH B
		ADD X,E,F		MUL T,C		MUL C		MUL
		MUL X,X,D		MOV X,E		STORE T		PUSH C
		ADD X,X,T		ADD X,F		LOAD E		MUL
				MUL X,D		ADD F		PUSH D
				ADD X,T		MULT D		PUSH E
						ADD T		PUSH F
						STORE X		ADD
								MUL
								ADD
								POP X

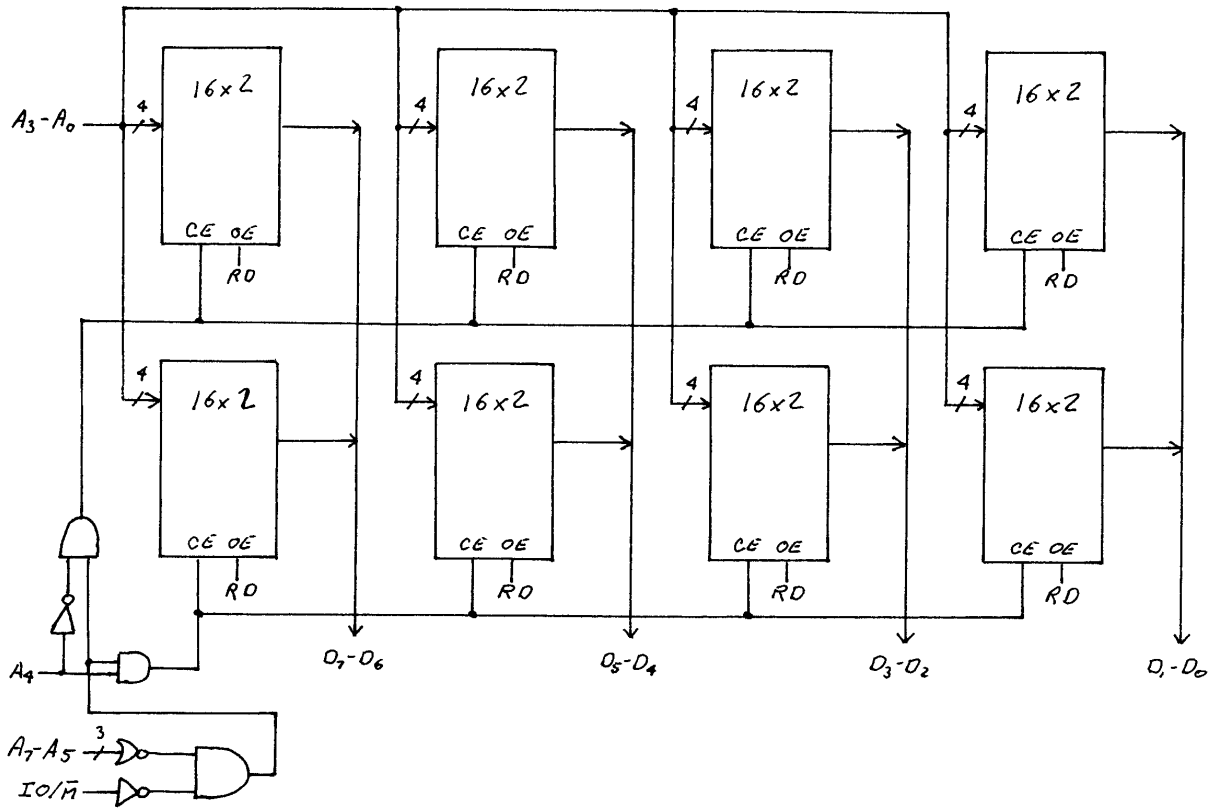
17.

Processor	Time per instruction	# Instructions	Total time
0	35 ns	12	420 ns
1	50 ns	9	450 ns
2	70 ns	7	490 ns
3	100 ns	5	500 ns

← fastest

## Chapter 4

6.



- 10.
- $CE = A_7'A_6'A_5'A_4' (IO/\bar{M})'$      $OE = RD$
  - $CE = A_7'A_6'A_5'A_4 (IO/\bar{M})'$      $OE = RD$
  - $CE = A_7A_6A_5A_4 (IO/\bar{M})'$      $OE = RD$

21.

