

## Chapter 6

1) a)  $f = \frac{1}{T} = \frac{1}{32\text{ns}} = \boxed{3.125 \times 10^7 \text{ Hz}}$   $T = 32\text{ns}$

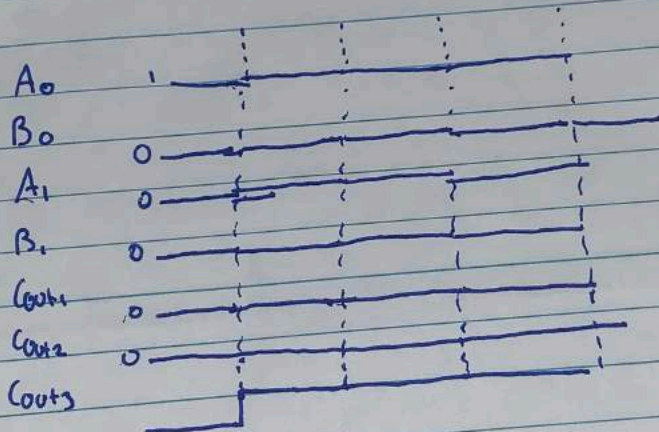
b) 1-bit  $\rightarrow$  8-bit

$$T = 8\text{ns} \cdot 8 = 64\text{ns}$$

$$f = \frac{1}{T} = \frac{1}{64\text{s}} = \boxed{1.56 \times 10^6 \text{ Hz}}$$

c)  $A_1 = 1$

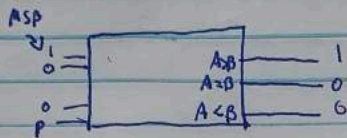
$B_0 = 0$



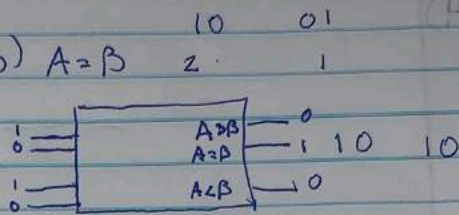


2)

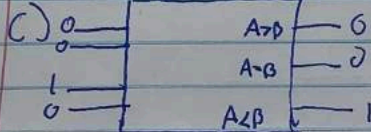
a)  $A > B$



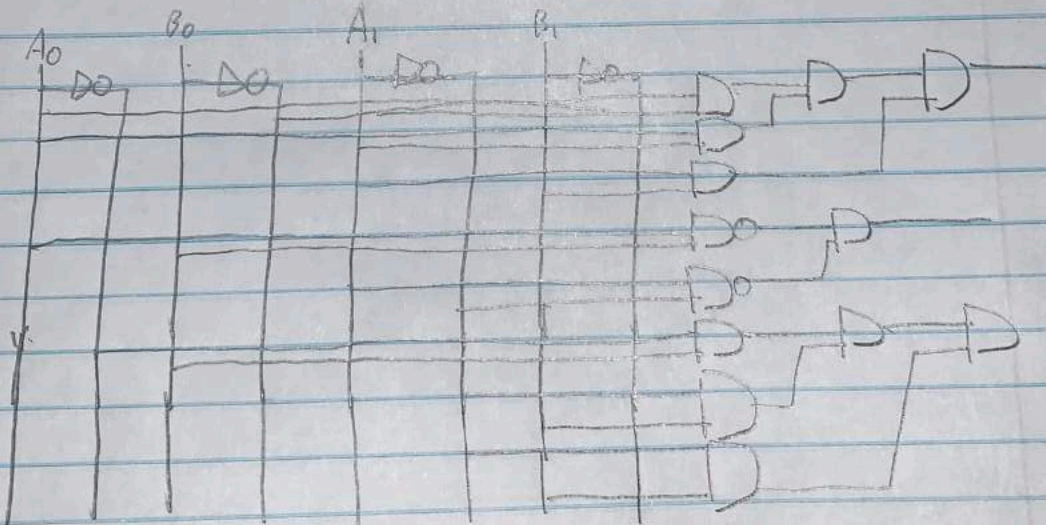
b)  $A = B$



$A < B$  ~~00~~ ~~00~~  $A = 00$   $B = 10$



D)



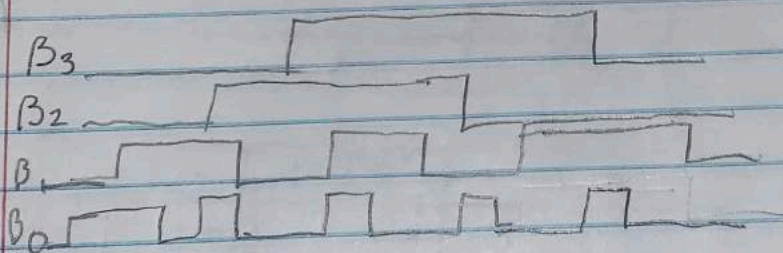
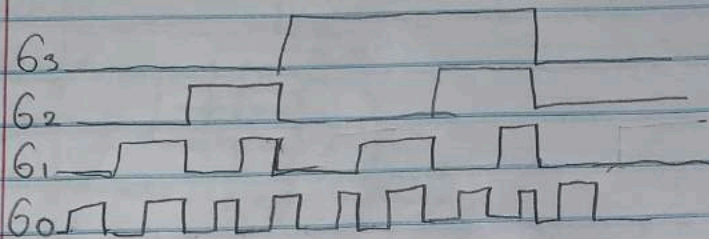


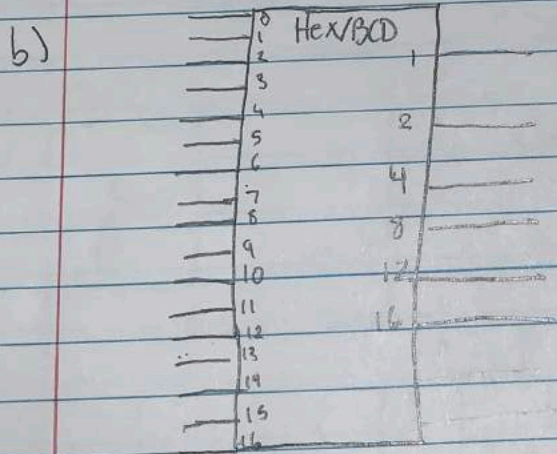
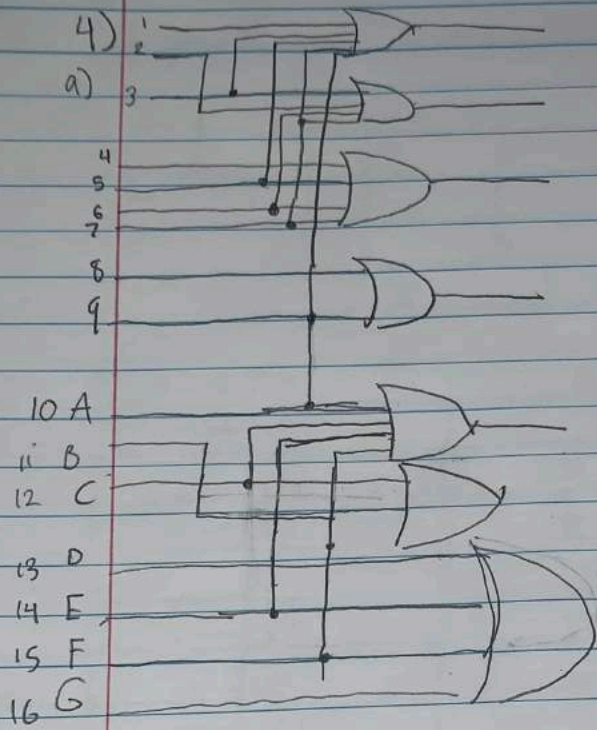
3)  $G_0$   $B_0$   $C_k$   $B.C = 0100 \rightarrow 0110$

$$= \begin{matrix} 0 & 0 \\ 0 & = & 0 \\ 1 & & 1 \\ 0 & & 0 \end{matrix}$$

$G_1$   $B_1$

$G_2$   $B_2$   
 $G_3$   $B_3$



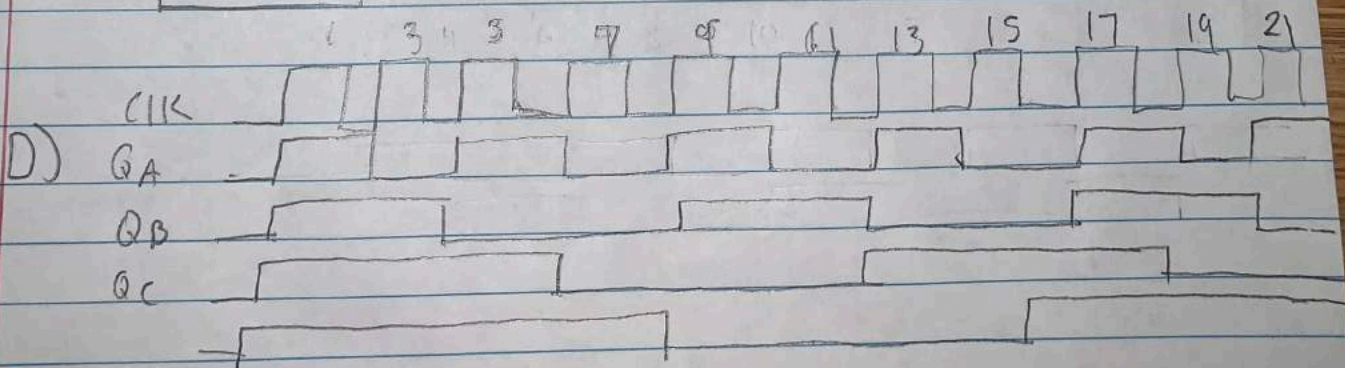
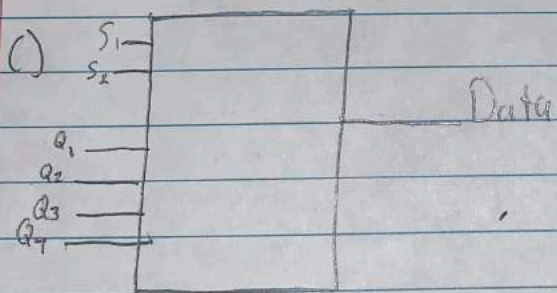
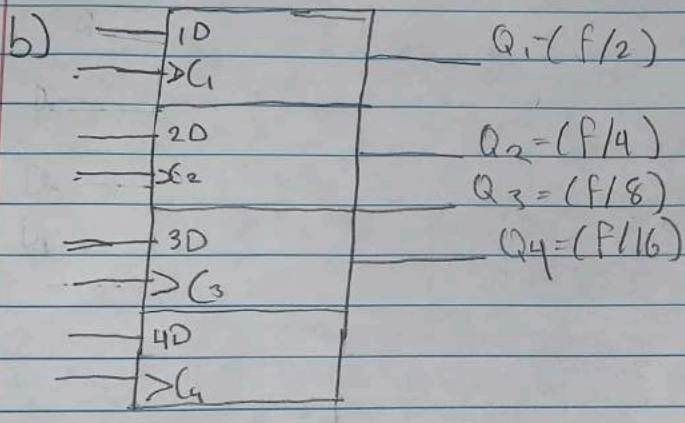
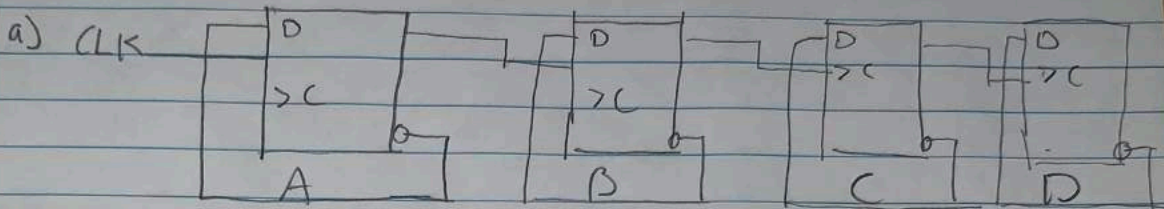


c)



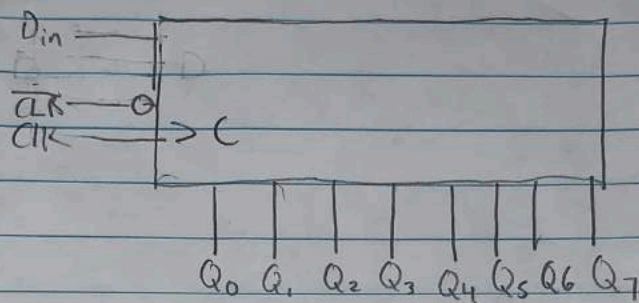
## Chapter 7

1)



## Chapter 8

1)



2)