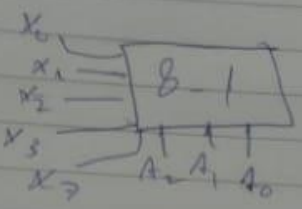
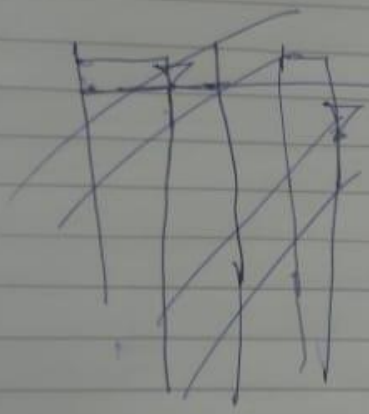
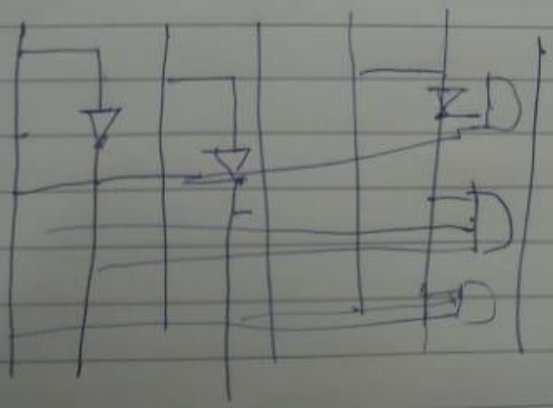
Abdelrahman essam Ab
sec: 4

b)

7-1 → use 8-1 mux







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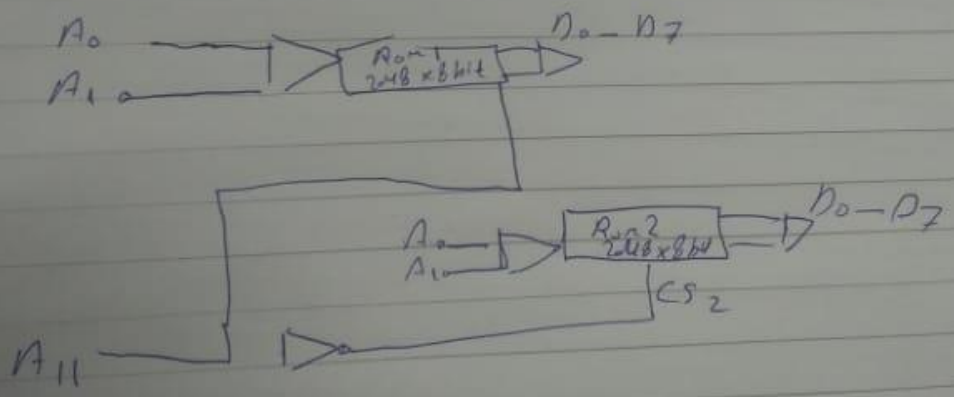
Sec : 4

(1024 * 8 bit) ___ 4096 * 16 bit

no of required add = 12

no of available add = 12



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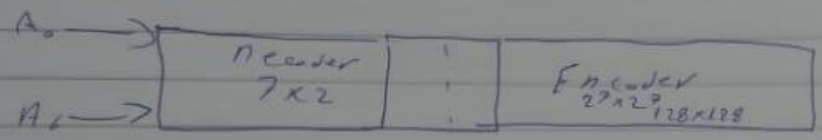
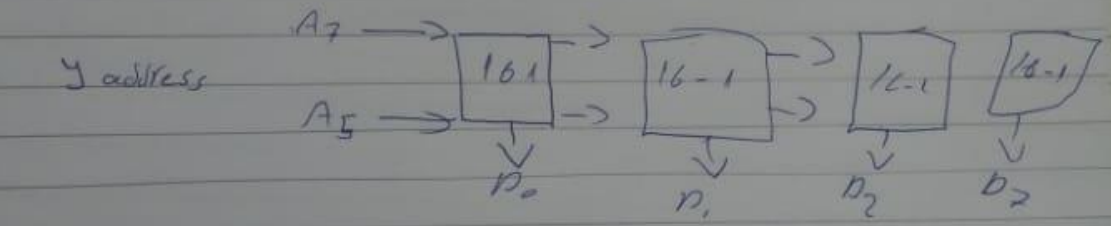
sec 4

total address = $2 = 2^{10} \times 2^4 = 2^7 \times 2^7$

data line = 4 bit

Address line =





Number of x-address = 7

Number of y-address = 2

number of NAND gate = $2^7 + [(16+1) \times 8] = 264$

Number of Transistor = $2^7 = 128$

Number of emitter = $2^7 = 128$