

* Solution *

Question paper code 26352

Q.1 c) i) $(128)_{10} \Rightarrow$

Binary $\Rightarrow (10000000)_2$

oct $\Rightarrow (200)_8$

hex. $\Rightarrow (80)_{16}$

Gray $\Rightarrow (11000000)_{\text{Gray code}}$

d) $(73)_{10} \Rightarrow$

Binary $\Rightarrow (1001001)_2$

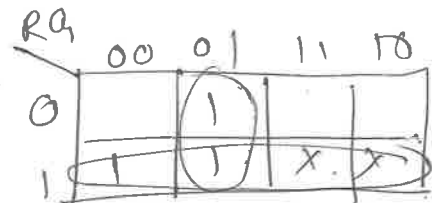
oct $\Rightarrow (111)_8$

Hex $\Rightarrow (49)_{16}$

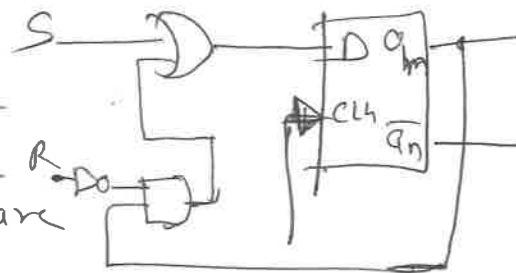
Gray $\Rightarrow (01101101)_{\text{Gray}}$

e) Convert D FF to S-R FF

S-R	Q_n	Q_{n+1}	D
0 0	0	0	0
0 0	1	1	0
0 1	0	0	0
0 1	1	0	0
1 0	0	1	1
1 0	1	1	1
1 1	invalid		Don't care
1 1	invalid		Don't care



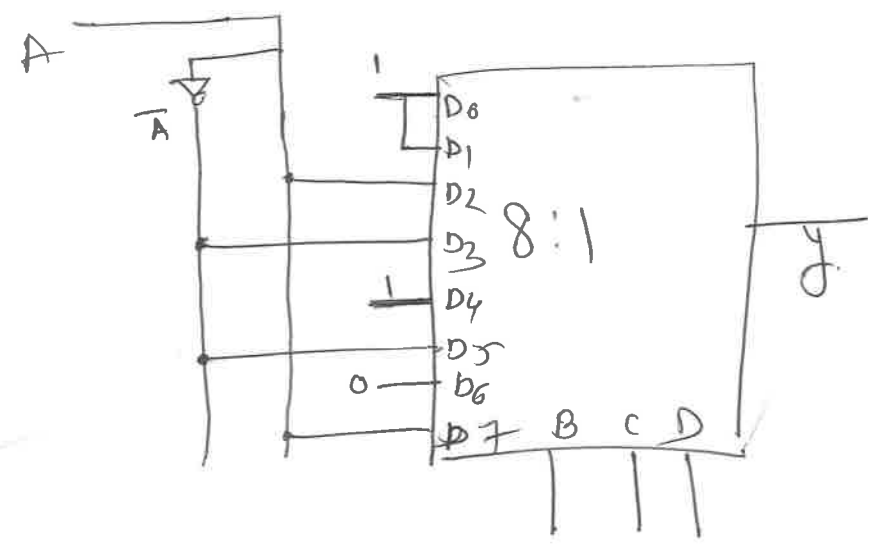
$D = S + \bar{R}Q_n$



Q-2 a)

$$F(A, B, C, D) \in m(0, 1, 3, 4, 5, 8, 9, 10, 12, 15)$$

	D ₀	D ₁	D ₂	D ₃	D ₄	D ₅	D ₆	D ₇
\bar{A}	0	1	2	3	4	5	6	7
A	8	9	10	11	12	13	14	15
	1	1	A	\bar{A}	1	\bar{A}	0	A



* Answer change according to selection of lines

Q-4 b)

	CD	00	01	11	10
AB	00	1	1	1	1
	01	1	1	1	1
	11	1	1	1	1
	10	1	1	1	1

$$Y = CD + \bar{A}\bar{B} + B\bar{C} + \bar{A}\bar{C}\bar{D}$$

design using basic gates.

* Above solution and Remaining paper have a design and Theory part. which paper checker can check according their assumption.