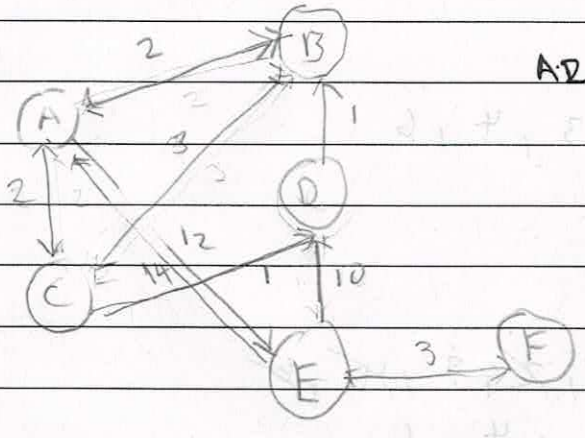
2^8	2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0	
256	128	64	32	16	8	4	2	1	
					1	0	0	0	
1	0	0	0	0	0	0	0	1	
		1	0	0	0	0	0	1	
1	0	1	0	0	0	0	0	6	
	0	1	1	0	1	0	1	1	Q 28

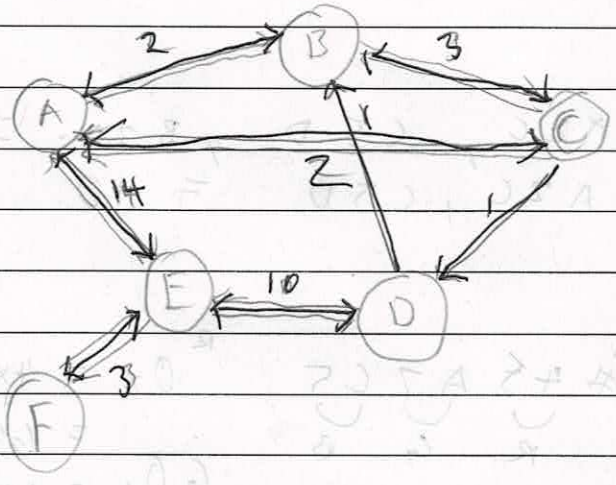
Q4. $2 << 2$ AND $16 >> 1$

① convert bin	② AND	③ convert ba
$2 << = 1000$	01000	$1000 = 8$
$16 = 10000$	01000	
	1000	

Q.5



A2B, B3C, C1D, D10E 16



A2B, B3C, C1D, D10E 16E3F
A2C, C1D, D10E, E3F 16
A14E, E3F = 17
F3E, E10D, D1B, B2A

Q7

$$A\begin{bmatrix} 4 & 2 \\ 1 & 7 \end{bmatrix} \qquad A-B = \begin{bmatrix} -2 & 0 \\ -2 & 7 \end{bmatrix}$$

$$B\begin{bmatrix} 6 & 2 \\ 3 & 0 \end{bmatrix}$$

Q16 $24_5 \Rightarrow 7$

5^1 5^0

$= 2 \times 5 + 4 \times 1$

$= 10 + 4$

$= 14$

convert $14_{10} \rightarrow 7$ bar

$14/7 = 2$

Q21

$A \cup B = 1, 2, 3, 4, 6$

$A \cap B = 2$

A

Q22 $A \cup B = 1, 2, 3, 4, 6$

$B = 2, 4, 6$

Q24 $A1B, A2C, C5D, B3A = 11$

$B3A, A2C, C5D = 10$

Q27 RGB hex #45A7C5

R G B

$R\ 0x = 4 \times 16 + 5$

$= 69$

$G\ 0x = 10 \times 16 + 7$

$= 167$

$B\ 0x = 12 \times 16 + 5$

$= 197$

Q27 Convert ~~Hex~~ Dec ⟹ Hex

R $69/16$ = ~~4.5~~
= 4.3125
= 4 5
= #A

Q $167/16$ = 10.4375
= #A7

B $197/10$ = C.3125
= C 5

Q28

Q24 0110 1011
= 64 + 32 + 8 + 2 + 1
= 107

Q29

$A = \begin{bmatrix} 4 & 2 \\ 1 & 7 \end{bmatrix}$ $B^T = \begin{bmatrix} 6 & 3 \\ 2 & a \end{bmatrix}$

$B = \begin{bmatrix} 6 & 2 \\ 3 & 0 \end{bmatrix}$ $B^T = \begin{bmatrix} 6 & 3 \\ 2 & 0 \end{bmatrix}$

$A \times B^T = \begin{bmatrix} 24 & 6 \\ 2 & 0 \end{bmatrix}$

24+4
24+4=28
6+7×2
= 20

4×3+2×0
= 12
1×3, = 3

Q30 257 XOR 65

① convert binair	② XOR	③ convert back
257 = 100000001	100000001	= 256 + 64
65 = 1000001	001000001	= 320
	101000000	

Q20

x ∈ N who –
x div 3 1, 2, 3

Ty