

Name	Momin Hussain
ID	14672
Section	A (BSSE)

14672

Question: No 4

An ISP is granted a block of
how many addresses are still available
after these Allocs

Answer:-

$$ID = 14672$$

$$X = 1 + 4 + 6 + 7 + 2 = 20$$

$$ID_{3+4} = 6 + 7 = 13$$

Given ID:

$$160 \cdot X \cdot ID_{(3+4)} \cdot 0/16$$

$$\Rightarrow \boxed{160 \cdot 20 \cdot 13 \cdot 0/16}$$

Total no of Addresses Allocated to IS

$$\boxed{2^{32-16} = 65536}$$

Roll No:- 14672

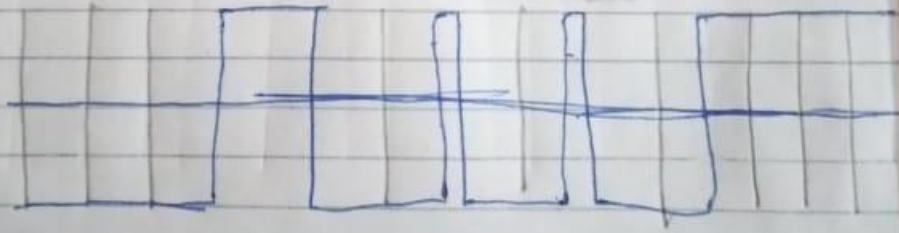
Question No:- 2

ANSWER

2	14672	
2	7336	0
2	3668	0
2	1834	0
2	917	0
2	458	1
2	229	0
2	114	1
2	57	0
2	28	1
2	14	0
2	7	0
2	3	1

NRZ-L Scheme Graph

1 1 1 0 0 1 0 1 0 1 0 0 0 0



14672

Question:- No 1

ANSWER:-

$$\begin{aligned}
 X &= 20 \\
 4^{\text{th}} &= 7 \\
 5^{\text{th}} &= 2 \\
 4^{\text{th}} + 5^{\text{th}} &= 7 + 2 = 9 \\
 101 \cdot 10 \cdot 11 \cdot 20 / 9
 \end{aligned}$$

$$\begin{aligned}
 01100101, 00001010, 00001011, 00010100 \\
 32 - 9 = 23
 \end{aligned}$$

$$011001010, 000000000000000000000000 = \text{Bit}$$

Now, 1s

$$01100101 \quad \underbrace{\text{|||||} \quad \text{|||||} \quad \text{|||||} \quad \text{|||||} \quad \text{|||||}}_{\text{}}$$

$$202 \cdot 127, 255, 255$$

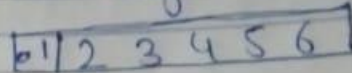
limited broadcast address 202.127, 255, 255

Question No: 3

Answer:-

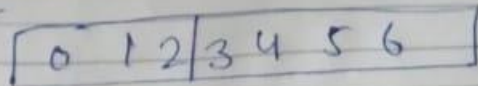
Before A send any frames

Sender:



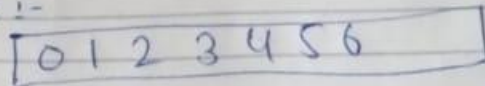
Window of PDU that may be transmitted
2 bit window

Receiver:-



Sender:-

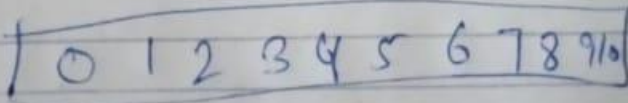
A has shrink his window as it has transmitted three PDUs but has received ask for 2 PDUs hence it is:-



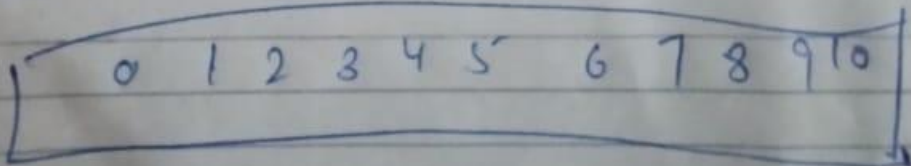
Acknowledgment receive for 2 bits.
Receiver:-

Receiver has received all data hence the window remains in 4 bit size.

Sender:-



Receiver:-



Acknowledgment received bit for window size

$$ID = 14672$$

by = formula

$$\boxed{ID \text{ last } 1/2}$$

since

$$ID \text{ last} = 2$$

$$\text{so } 2/2 = 1 \text{ window size}$$