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Subject: CC&N

Final Assignment

Date = 24/06/2020

Submitted to: Mansoor Qadir Sb

ID = 14582 Q 1 Page ①

Question No = 1

Ans ① =

$$ID = 14582 = 20$$

$$8 + 2 = 10$$

convert to Binary -

11001011010101110100

Address Mask = 11

① First IP Add -

00000000 0000 0000 00000

② Last IP Add -

11111111 1111 1111 1111

Q2 (Ans) 14582 (2)

Question 2:

Solution 2:

10 = 14582 -

Convert to the Binary number

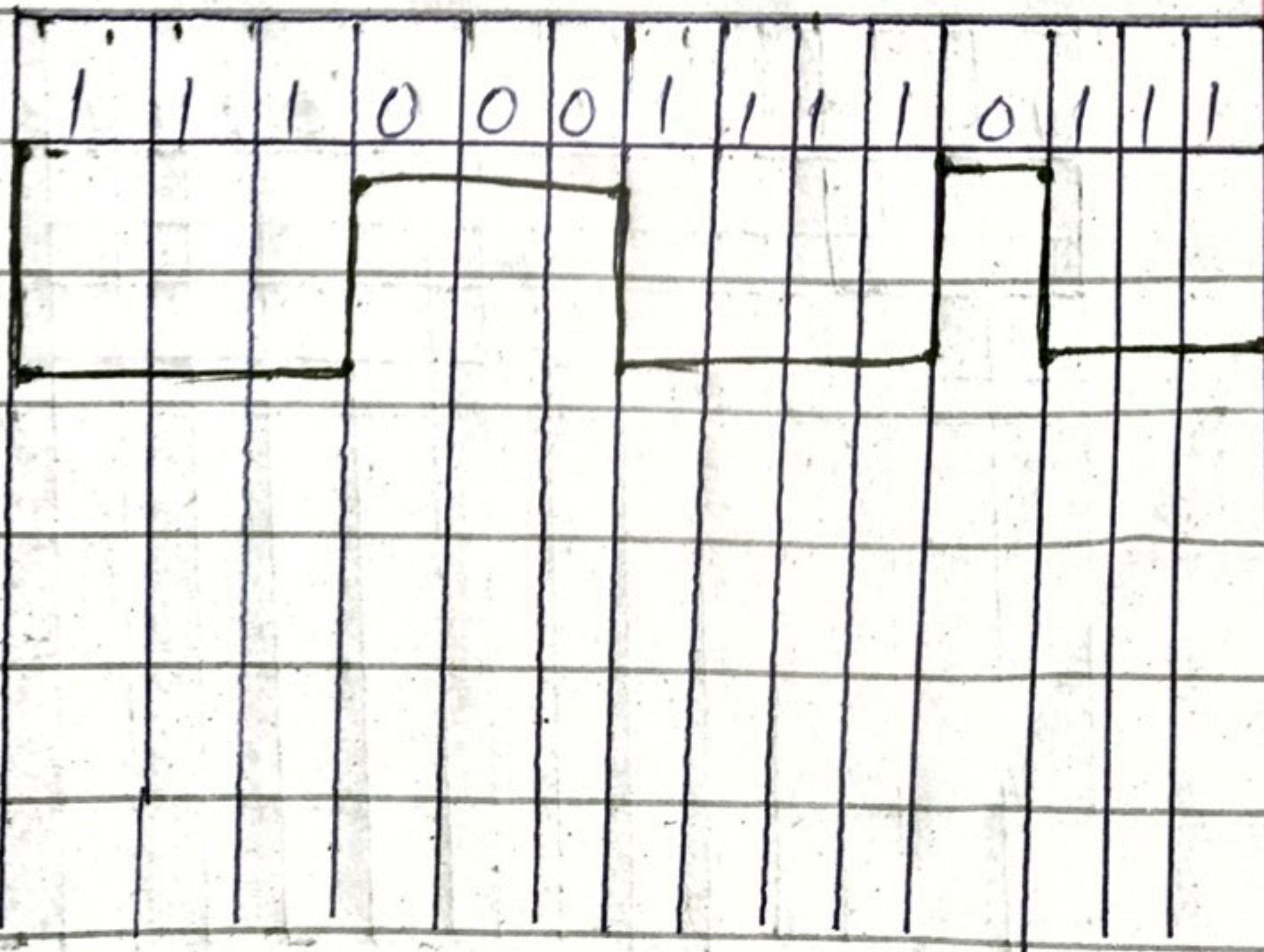
1110001110110

Now change the last figure

0 to 1, so then

1110001110111

NRZ-L graph -



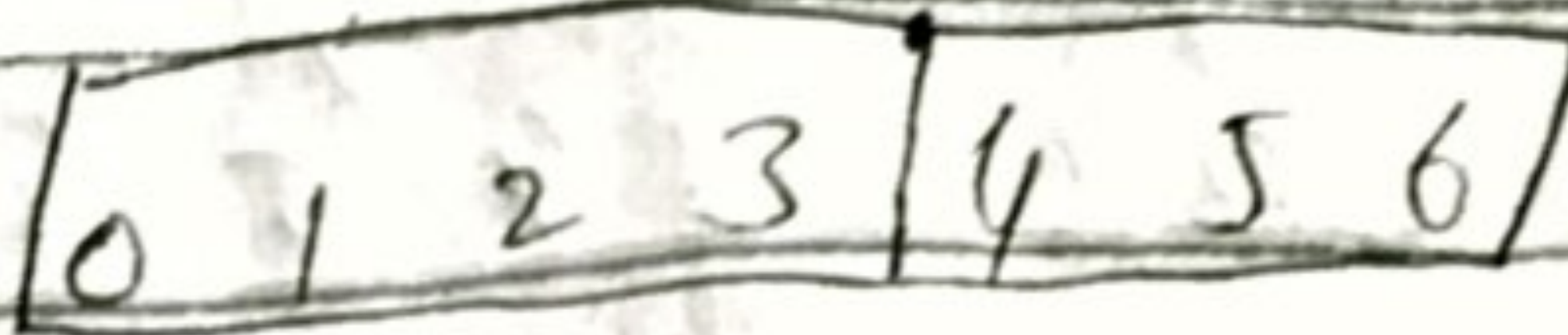
Q3) 14589 Q3

Question 3:

Ans 3: (A)

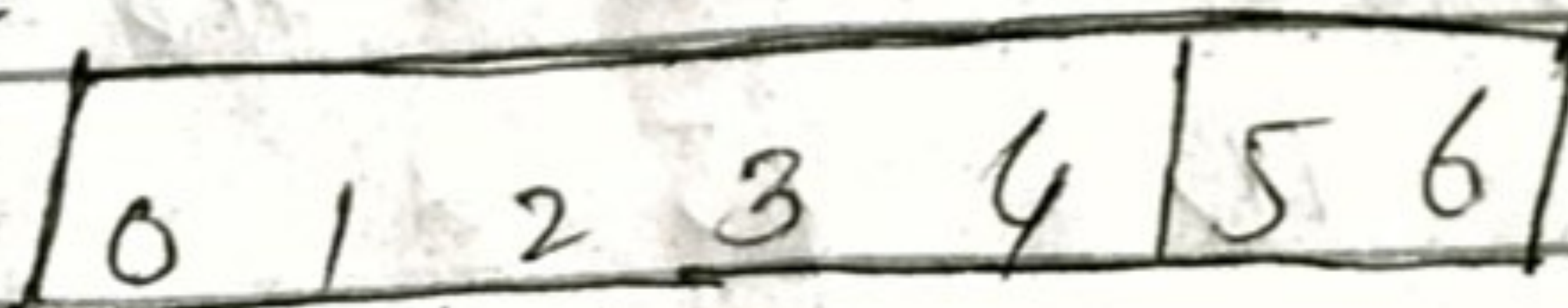
Before A send any frames:

Sender:



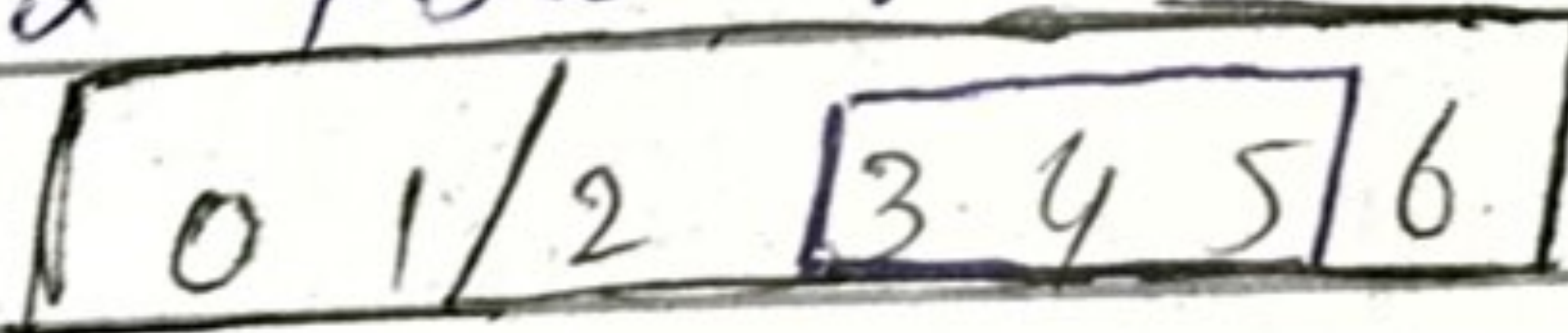
Window of PDU that may be transmitted 4 bit window.

Receiver:



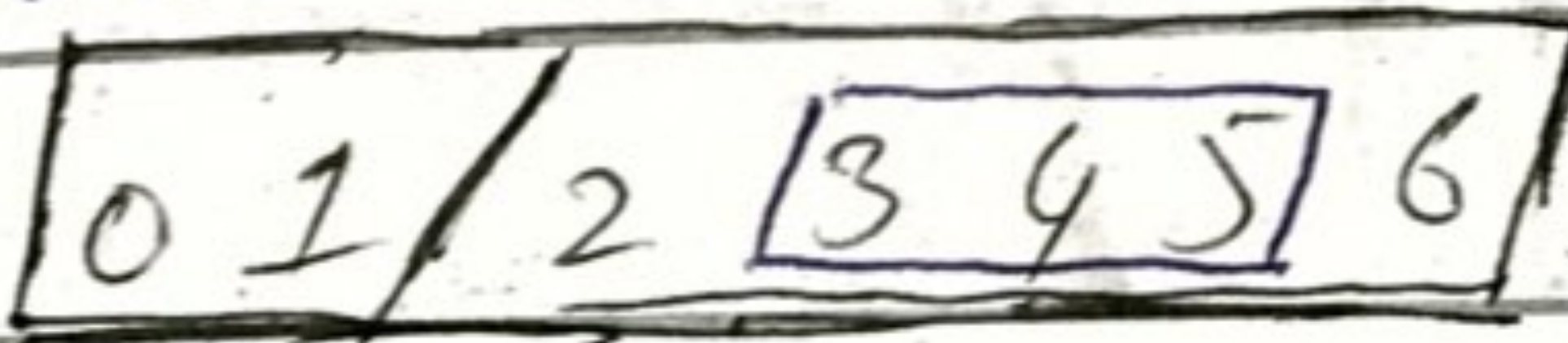
(B) Sender:

A has shrunk its window as it has transmitted three PDUs but has received ask for 2 PDU hence it is:



Acknowledgment receive for two bits.

Receiver:



Q3 14582 Q4

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

(c) Sender:

0	1	2	3	4	5	6	7	0	1
---	---	---	---	---	---	---	---	---	---

Receiver:

0	1	2	3	4	5	6	7	0
---	---	---	---	---	---	---	---	---

All acknowledgment received for 3 bit
Now window size -

10 = 14582

By Formula -

10 last is 2

2 is less than 5

So the window size is = $\boxed{2}$

14582 Q(4) Page (5)

Question 4 =

An ISP is granted a block of how many addresses will available these also

Ans (4) =

$$ID = 14582$$

$$X = 1 + 4 + 5 + 8 + 2 = 20$$

$$ID_{3+4} = 5 + 8 = 13$$

Given ID:

$$160 \cdot X \cdot D(3+4) \cdot 0/16$$

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

Total no of addresses allocated to it

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