

Name: Ryan Mohammad Bin Shahjahan

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Ans: to the qu: NO: 1

(a)

198.0.0.0

← Net → ← Host →

11111111 11111111 11111111 11111111 | 00

class : C

subnet mask in decimal notation: 255.255.255.252

(b)

198 . 0 . 0 . 0
← Net → host

0000000|00
10th subnet : 001010|11 (broadcast)

∴ 10th subnet of broadcast : 198.0.0.43

(c)

~~18~~ 198.0.0.0

← Net →

0000000|00
5th ~~1st~~ subnet : 000101|01 → 1st host
5th subnet : 000101|10 → last host

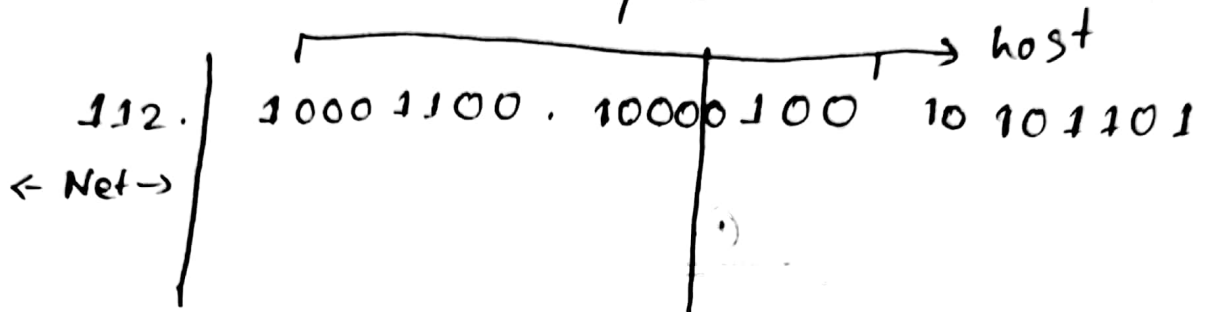
∴ 5th subnet of 1st host : 198.0.0.21

5th subnet of last host : 198.0.0.22

Ans: to the qu: No: 2

(a)

112.140.132.173/20



class: A

total subnet possible: $(2^2 - 2)$

(b)

112.140.132.173

00000000 00000000 00000000

1st subnet 00000000 00011111 11111111

last " 11111111 11101111 11111111

↑ broadcast

1st

subnet broadcast : 112.0.31.255

last

subnet broadcast : 112.125.239.255

11110001 00000000 00000000 00000000

112.140.132.173

00000000 00000000 00000000 00000000

9th subnet 00000000 10011111 11111110

00000000 00000000 00000000 00000000

00000000 00000000 00000000 00000000

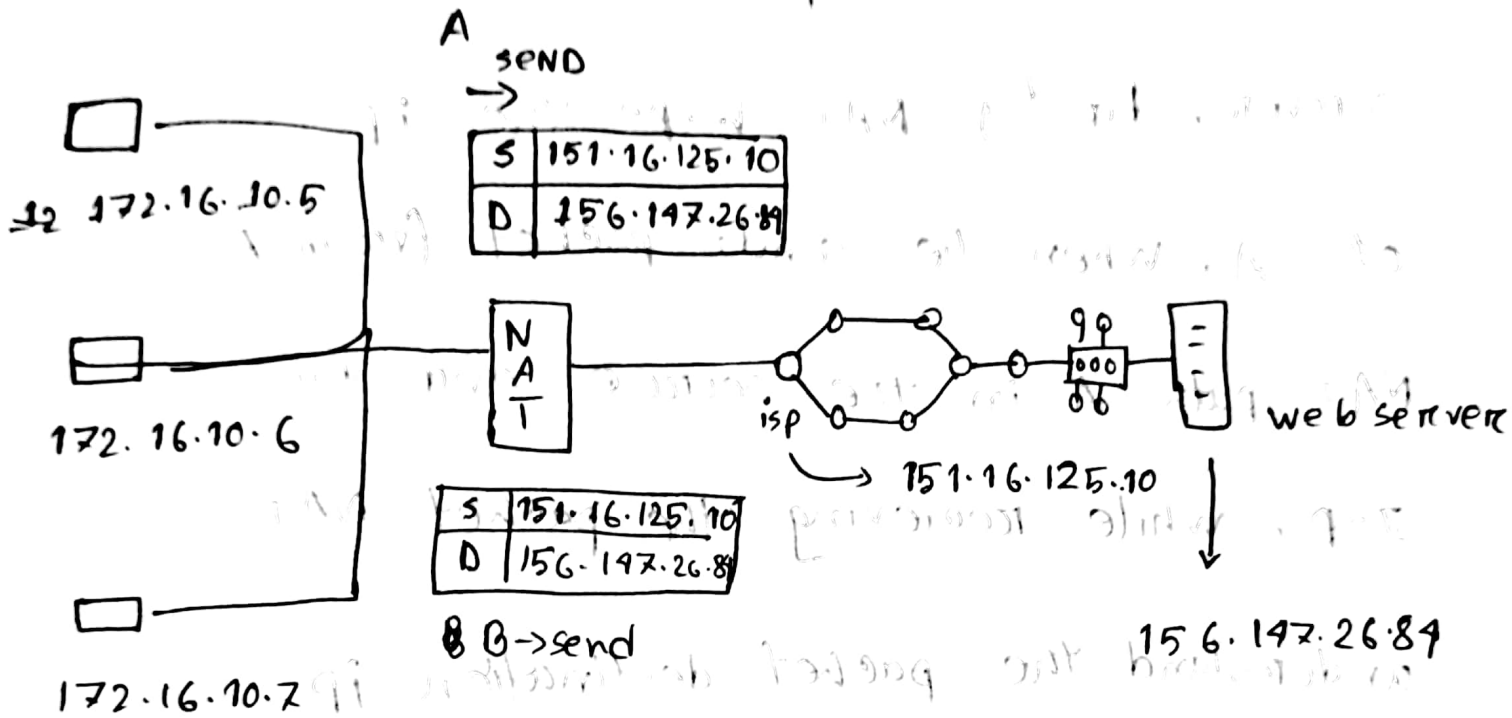
00000000 00000000 00000000 00000000

9th subnet last host : 112.140.159.254

00000000 00000000 00000000 00000000

~~112~~

Ans: to the qu: NO: 3



index chart from NAT

172.16.10.5	A
172.16.10.7	B

Here, NAT sends packet to his web server. Firstly NAT keeps the IP of A. When he sends packet from A NAT puts A in the source and use ISP. While receiving the packet NAT understand the packet destination IP index. By this it deliver to same procedure for B.

Ans: to the qu: No. 4

Hence,

$$CB \rightarrow 10$$

$$CD \rightarrow 19$$

$$CG \rightarrow 16$$

$$CH \rightarrow 18$$

source: C

Destination: J

$$CB + BJ = 10 + 25 = 35$$

$$CD + DJ = 19 + 9 = 28$$

$$CG + GJ = 16 + 31 = 47$$

$$CH + HJ = 18 + 13 = 31$$

so, the path is: $C \rightarrow D \rightarrow H \rightarrow J$

Ans: to the qu: NO: 5

142. 163. 200. 254

class B

142. 163. 200. 254

← net →

0000000/00 000000000

11111111 11111111 1111111/00 00000000
255 255 252 0

Dest ip: 142. 163. 135. 250

1111 1111 . 1111 1111 . 1111 1100 . 00000000
 1000 1110 . 1010 0011 . 1000 0111 . 00000000

 1000 1110 . ~~10100011~~ . 10000100 . 00000000
 1010 0011

142.163.132.0 \rightarrow subnet ip

subnet possible : $2^6 - 2$

host possible : $2^{10} - 2$