



University of Asia Pacific (UAP)

Department of Computer Science & Engineering

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Course Code : CSE 319

Course Title : Computer Networks

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Section: B

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Ans to the qus no.2

Here,

My birthdate Month = 10

u = number of union council

Required host, $i = 10 \times u$

From table 1,

Divison (network name)	Reqjire host $i = 10 \times u$	Reaquired host (i)
chittagong	949×10	9490
Barisal	333×10	3330
Dhaka	1248×10	12480
Mymnsingh	350×10	3500
khulna	270×10	2700
Rajshai	558×10	5580
Rangpur	536×10	5360
sylhet	334×10	3340

Now, My id = 94,

Base network address will be
class B.

Let, Base network: 135.58.0.0 / 16

Base network: 135.58.24.17 /16

Network Name	Number of host	Network Address	Subnet Mask	First Host	Last Host	Broadcast Address
Barisal	3330	135.58.224.0/20	255.255.240.0	135.58.224.1	135.58.239.254	135.58.239.255
Chittagong	9490	135.58.64.0/18	255.255.192.0	135.58.64.1	135.58.127.254	135.58.127.255
Dhaka	12480	135.58.0.0/18	255.255.192.0	135.58.0.1	135.58.63.254	135.58.63.255
Khulna	2700	135.58.240.0/20	255.255.240.0	135.58.240.1	135.58.255.254	135.58.255.255
Mymensingh	3500	135.58.192.0/20	255.255.240.0	135.58.192.1	135.58.207.254	135.58.207.255
Rajshahi	5580	135.58.128.0/19	255.255.224.0	135.58.128.1	135.58.159.254	135.58.159.255
Rangpur	5360	135.58.160.0/19	255.255.224.0	135.58.160.1	135.58.191.254	135.58.191.255
Sylhet	3340	135.58.208.0	255.255.240.0	135.58.208.1	135.58.223.254	135.58.223.255

Ans to the qus no. 1(a)

Here,

My birthday = 30 Oct.

So, Access link $n = 30$ Gbps

circuit switching used where guaranteed performance needed.

Here,

ISP shares access links of 30 Gbps

Internet package = 10 mbps

So, number of user supported

$$= \frac{30 \times 1024}{10}$$

$$= 3072 \text{ user}$$

$$\text{ISP will earn} = (3072 \times 500) \text{ taka}$$

$$= 1,536,000 \text{ taka.}$$

Ans

Ans to the qus no. 1 (b)

XYZ ISP can provide more connection. If they use packet switching instead of circuit switching, packet switching can serve more users than circuit switching.

on this, scenario, ISP access link is = 30 Gbps.

For, 80% idle users, inactive user = 20%.

$$\begin{aligned}\text{So, Access Link} &= \frac{30 \times 20}{100} \text{ gbps} \\ &= 6 \text{ gbps.}\end{aligned}$$

\therefore each user get 40 mbps.

$$\text{total user} = \frac{6 \times 1024}{16}$$

$$= \therefore 614 \text{ ~~mbps~~ user}$$

so, if there is 250% more user

$$\text{then total user is} = \frac{614 \times 250}{100}$$

$$= 1535 \text{ user}$$

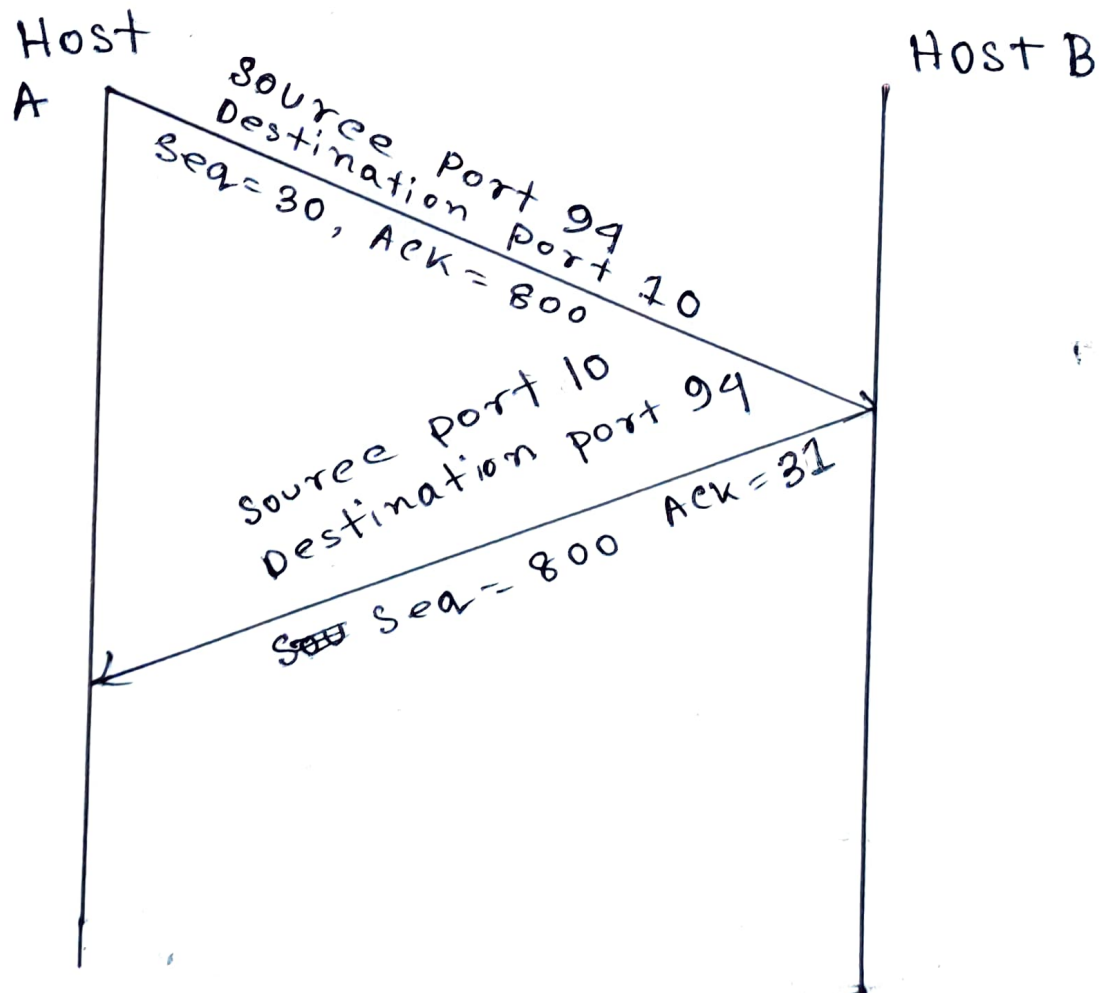
Ans to the qus no. (3) a

TCP connection Between A and B.

\therefore Source Port = 18101094

\therefore Destination port = 30

Now,



For, Host A to B Lets Assume
Sequence No = 36 and Ack = 800.

Ans to the qus no. 3(b)c

UDP in application where speed is more critical than reliability. It may be better to use UDP in an application sending data from fast acquisition where it is acceptable to lose some data.