Sub :

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# Final - CSE 405

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Course : CSE 405

Section : 3

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## Ans. To. Q.NO:-1

| STATE | E | D | C | B | A |
|---|---|---|---|---|---|
| Initial | 2+8=10 | 3+5=8 | 5 | UP | 8 |
| 1st | 2+8=10 | 3+5=8 | 3+8=11 | Down | Null |
| 2nd | 2+8=10 | 3+11=14 | 3+8=11 | Down | Null |
| 3rd | 2+14=16 | 3+11=14 | 3+14=17 | Down | Null |
| 4th | 2+14=16 | 3+17=20 | 3+14=17 | Down | Null |
| 5th | 2+20=22 | 3+17=20 | 5 | Up | 8 |
| 6th | 2+20=22 | 3+5=8 | 5 | Up | 8 |
| 7th | 2+8=10 | 3+5=8 | 5 | Up | 8 |
| 8th | 2+8=10 | 3+5=8 | 5 | Up | 8 |

Ans.
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## Ans. TO Q.NO:- 2

~~If the sequence length of~~

If the length of the sequence number is short then, if a ~~Surce~~ source generates a packet very quickly then the sequence number will quickly reach the maximum number. After that the source router will restart the sequence and send the updated packet will a sequence number from the start. But since that new sequence number is lower than the max sequence number the reciver has, the reciver will not ~~accept~~ accept it even though the packet is new and updated.

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| | | | | Packet Sent | | | | Acknowledgement sent | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Owner | source | Age | sequence | P | U | T | R | P | U | T | R |
| P | T | NULL | 118 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| T | R | NULL | 98 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| P | U | NULL | 116 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |

Distribution Table

Not Inserted

This 3rd row will not be inserted in the distribution table.

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## Am. To. Q. NO:- 93

Leaky bucket algorithm is like a bucket full of water with a leak which is leaking water in small amounts.

So, in the algorithm, the bursty data will pool in a buffer and there will be a leak which has the size of the network can handle the data. So the bursting nature data is regularized. The buffer has to have sufficient size to hold the huge pool of data.

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Given,

Rate = 512 MB/s

Time = 25 msec

Total Data generated,

Data = 512 /1000 ms * 25 ms

= 12.8 MB

∴ Transmission capacity,

$\frac{64}{12.8} = 5$ MB

~~So the capacity is 5x12.8 MB~~

So, the capacity is 5MB thus the Data generated.

Ans

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## Ans To Q.No:- 4

Here, sjsu.edu is under a top level domain called .edu and yahoo.com is under another top level domain called .com. So when a host which is under the .edu sub domain wants to create a TCP connection with yahoo.com it will need 2 things. A port number and IP address. The port number is in the http:// protocol, so for the IP address it will look in the local DNS. If it is not in the local DNS then the DNS will go to the upper level .Dot Domain

and go to the .com domain where yahoo.com is in. Then in the .com Domain it will go to the yahoo.com web server and get the ip address from. its DNS server. and return to the host with the IP.

Now Both Port and IP address are present to start a TCP connection with the host and yahoo.com. Now using that the connection will be made, when the request is send to the website's frontend.

There the transmission entity will use NSAP and TSAP to make the connection.

—x—

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## Ans To Q.no 5

In the above server farm, to improve the performance, 2 thing can be done.

### TCP Handoff

In normal case the front will do all the receiving and replying to requests. This replying part can be done by the machine which will get the request from it memory cache. Then this machine will directly connect to the client and

Reply to their request and to take some load of the front end.

Specific Request will be handed over to a specific machine :-

If a web server has worked on a specific ~~machine/node~~ sin request previously then any request relating to that will be sent to this machine, since that request is already on that machines cache memory.

—x—