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Class Test-1

Answer 1:

Problem is when 2 servers run on the same port address then they both have the same IP address and therefore they cannot be uniquely identified.

Two complete URLs to access the two servers are

http://www.mypages.ac.in:80/index.html

http://www.mypages.ac.in:8080/index.html

Answer 2:

HTTP GET requests: 3

a. GET http://www.mynetworkcourse.org/mypage.html HTTP/1.1

b. GET http://www.mynetworkcourse.org/network.gif HTTP/1.1

c. GET http://www.mynetworkcourse.org/images/cs31006.gif HTTP/1.1

Answer 3:

Can't use SMTP to obtain the messages because obtaining messages is a pull operation, whereas SMTP is a push protocol.

Yes, there is a problem in given

Also in every n seconds, check if there is a new mail or not.

Answer 4:

Both HTTP and FTP use a client-server model to transfer the files from the server to the clients on request but we need a separate a protocol for file transfer because in some cases it can cause problems. Since, HTTP can easily maintain multiple session simultaneously because it's stateless while FTP has a stateful control connection therefore FTP server will maintain state information like a user's current directory for a session. For example, two systems may have different file conventions. Like two systems may have different ways to represent text and data like images then the two systems may have different directory structures. So, in these cases FTP protocol overcomes these problems by establishing two connections between hosts. One connection is used for data transfer, and another connection is used for the control connection.

Answer 5 :

FTP used 2 separate channels one each for command and data because FTP allow the control channel to be used during transfer.Since, FTP is used for large file transfer, if command channel is used for data transfer as well, the commands for other clients may experience a higher queue delay while one client is being served.

Passive mode will be useful when there is a firewall ie, in case the client is behind a firewall and can not accept a connection. Then in this case the server then selects a random port, and the client initiates a TCP connection to that server port.

Answer 6:

2 request transaction which are these :

one for query which is then processed between local name server and other authoritative name server and then the response from local name server to client).

Also, for bottleneck here if the local name server hosts many clients it may lead to many requests and while there is a lookup on the authoritative name server which after all may take time and it can exceed the limit to wait for other DNS requests waiting in the queue and thus giving bad response

Answer 7:

cse.iitkgp.ac.in   :   Fully Qualified Domain Name

86400 :   TTL (Time-To-Live) in seconds

IN :   Class - Internet Resources

A : It is Record type for IPv4

203.110.245.250 : IPv4 address

Answer 8:

a. False, because not all devices need to support all five layersof protocol stack. Ex, L3 switches only need to support Network,data link and physical layers

b. False, as we go down we need more headers and information so length incresaes

c. False, we use simple UDP because reliability comes at the application layer

d. True, because persistant connections can eliminate TCP connection delays and pipelined requests can eliminate transfer latencies.