Select a wrong statement

A. TCP and UDP are in transport layer

B. TCP provides reliable connections while UDP is unreliable connections

C. HTTP uses TCP

D. FTP uses UDP

E. All network applications rely on either TCP or UDP

A network application process is identified by

A. MAC address

B. IP address

C. IP address and port number

D. Domain name and IP address

E. MAC address and port number

UDP is unreliable, why we still need it?

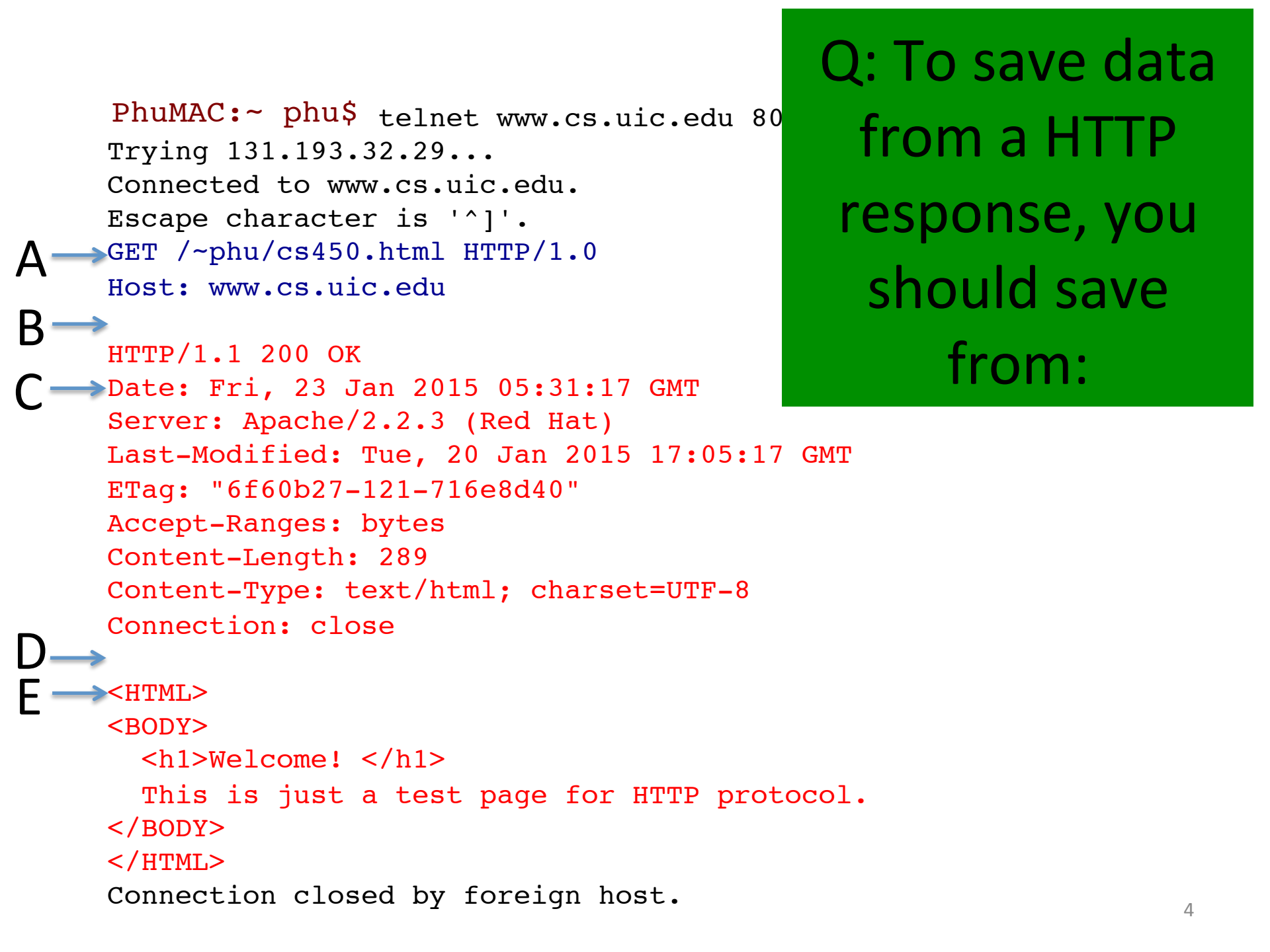
A. Because TCP is bad

B. Because UDP is good

C. Because in some cases, UDP is better than TCP

D. Because UDP is speedy

E. C and D are both correct


PhuMAC:~ phu$ telnet www.cs.uic.edu 80
Trying 131.193.32.29...
Connected to www.cs.uic.edu.
Escape character is '^]'.
A
GET /~phu/cs450.html HTTP/1.0
Host: www.cs.uic.edu
B
HTTP/1.1 200 OK
C
Date: Fri, 23 Jan 2015 05:31:17 GMT
Server: Apache/2.2.3 (Red Hat)
Last-Modified: Tue, 20 Jan 2015 17:05:17 GMT
ETag: "6f60b27-121-716e8d40"
Accept-Ranges: bytes
Content-Length: 289
Content-Type: text/html; charset=UTF-8
Connection: close
D
E
<HTML>
<BODY>
<h1>Welcome! </h1>
This is just a test page for HTTP protocol.
</BODY>
</HTML>
Connection closed by foreign host.
Q: To save data from a HTTP response, you should save from:

Select a correct statement

A. Persistent HTTP uses more connections.

B. Persistent HTTP sends fewer HTTP requests

C. Persistent HTTP sends more HTTP requests

D. Persistent HTTP uses less connections to improve download time

E. Both B and D are correct

Why \r\n (CRLF) is used in HTTP request?

A. Just unnecessary protocol format

B. They are automatically generated when user hits ENTER

C. They are used to indicate the end of a header field or section

D. None of above is correct

Why cookies are used in HTTP

A. It is required by law

B. To improve non-persistent HTTP

C. Because HTTP is stateless

D. All above are correct

When Alice sends an email to Bob

A. Alice's mail server will send the email to Bob's mail server
B. Alice's mail client will send the email to Bob's mail client
C. Alice's mail client will send the email to Bob's mail server
D. Alice's mail server will send the email to Bob's mail client

How to prevent one inputs a fake FROM address?

A. We cannot prevent that

B. The MTA will check the FROM address if it is valid

Which “To” address version that the email client will display?

A. Address in the “RCPT TO” SMTP command

B. Address in the “To” email header

C. Both A and B

D. A or B because they must be the same

Domain Name System (DNS) provides translation services of

A. Domain name to IP address

B. Domain name aliases

C. Mail server alias for a domain name

D. A, B, C

E. A, B

Select a wrong statement

A. A name in DNS might be mapped with many IP addresses
B. Multiple domain name might be pointed to one IP address
C. DNS service can provide a reverse lookup from an IP address to a domain name
D. DNS only uses TCP transport service

When lookup a domain name, your machine first sends a request to

A. The local name server of your network

B. Top-level name server

C. Authoritative name server

D. Root name server

E. A name server set in your machine

BitTorrent is typically used as hybrid peer-to-peer and client-server system

A. True

B. False

BitTorrent uses tit-for-tat in each round to

A. Determine which chunks to download

B. Determine from which peers to download chunks

C. Determine to which peers to upload chunks

D. Determine which peers to report to the tracker as uncooperative

E. Determine whether or how long it should stay after completing download

Select a wrong statement

A. Both TCP and UDP need connection setup

B. Delivery of UDP packets is unordered

C. TCP provides reliable transport protocol

D. TCP provides congestion control while UDP does not

E. Neither TCP nor UDP has delay guarantees

Let's assume a sender sent a UDP segment with (checksum, data) = (0110, 0101); and the receiver received (0100, 0101). The receiver can conclude

A. The segment is corrupted

B. The checksum is wrong

C. The data is correct

D. B and C

What is the problem of rdt2.0 (channel with bit errors)?

A. Nothing

B. The packet might be corrupted

C. The checksum might be corrupted

D. The ACK/NAK might be corrupted

E. C and D

rdt2.2 provides reliable data transfer with possibility of packet corruption, which fields it needs?

A. Checksum

B. Checksum, ACK

C. Checksum, ACK, NAK

D. Checksum, ACK, sequence number

E. Checksum, ACK, NAK, sequence number

What is the new feature in rdt 3.0 compared with rdt 2.x?

A. Larger sequence number

B. Timer

C. Checksum

D. ACK

E. NAK

Select a wrong statement about Go-Back-N

A. GBN uses cumulative ACKs

B. GBN uses timeouts to address packet loss

C. GBN has one timer for each unacked packet

D. GNB uses NACKs

E. C and D

Sender sends seq#=101, with data length = 20 bytes, and receives ack = 91. What is true?

A. The receiver has successfully received up to seq# 90

B. The packet with seq#=101 was lost

C. The packet with seq#=91 was lost

D. A and B

E. A and C

What is DevRTT?

A. Relative difference between SampleRTT and EstimatedRTT

B. It is used as a parameter for safe margin of timeout interval

C. It is used to re-calculate SampleRTT

D. A and B

E. A and C

What the “receive window” in a TCP segment header is used for?

A. Pipelining

B. Size of window

C. Flow control

D. A and B

E. A, B, and C

How much time it takes for sender and receiver in TCP to establish connection state?

A. 1RTT

B. 1.5RTT

C. 2RTT

D. 2.5RTT

E. 3RTT

Why does congestion collapse happen?

A. Available buffers in the switching nodes are full and packets must be dropped

B. The switching nodes delay forwarding packets

C. The receiver's buffer is full that cannot receive more packets

D. A and B

E. B and C