Google IT Support Certificate: Course 2: The Bits and Bites of Computer Networking

Week 3: The Transport and Application Layers

Quiz: The Transport and Application Layer

Question 1:

Nodes on a network have the ability to direct traffic toward many different receiving services. What provides this ability in the transport layer?

Demultiplexing

Socket address

File Transfer

Multiplexing

Question 2:

Which field in the TCP header provides the information for the receiving network device to understand where the actual data payload begins?

Data offset

Checksum

Acknowledgement number

Sequence number

Question 3:

A Transmission Control Protocol (TCP) connection is established and two devices ensure that they're speaking the same protocol. What has occurred?

Two-way handshake

Handwaving

Four-way handshake

Three-way handshake

Question 4:

A connection has been terminated and no communication is possible. What is the Transmission Control Protocol (TCP) socket state?

CLOSE WAIT

FIN_WAIT

CLOSED

FINISHED

Question 5:

If the checksum doesn't compute for a packet sent at the Internet Protocol (IP) level, what will happen to the data?

The data will be sent back to the sending node with an error.

It will be sent, but may be out of order.

The data will be discarded

The data will be resent

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In the OSI network model, the _____ is responsible for making sure that the unencapsulated application layer data is actually able to be understood by the application in question.

session layer

data layer

presentation layer

application layer

Question 7:

You are sending a very small amount of information that you need the listening program to respond to immediately. Which Transmission Control Protocol (TCP) flag will be used?

ACK

URG

RST
PSH
Question 8:
Application layer data lives in the section of the transport layer protocol.
flags
header
payload
footer
Question 9:
What port does the File Transfer Protocol (FTP) typically listen on?
25
80
21
443
Question 10:

A communication between two devices is over the maximum limit of an ethernet frame size. The Transmission Control Protocol (TCP) splits up the data into segments. Which field in the header helps keep track of the many segments?

Acknowledgement number

Sequence number

Urgent pointer

Checksum