

1 What is the purpose of the TCP three-way handshake?

- ☒ to adjust the size of the sliding window
 - ☐ to establish the presence of the destination host
 - ☐ to confirm the availability of the destination port
 - ☒ to synchronize sequence numbers prior to data transmission
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2 What are the features of the User Datagram Protocol (UDP). (Choose three.)

- ☐ no guaranteed delivery of datagrams
 - ☐ connection-oriented
 - ☐ provides reliable full-duplex data transmission
 - ☒ reliability provided by the application layer
 - ☒ connectionless
 - ☐ utilizes sliding windowing techniques
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Which protocol is used by FTP to transfer files over the Internet?

- 3**
- ☒ TCP
 - ☐ SMTP
 - ☐ UDP
 - ☐ SNMP
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4 How does windowing ensure that a data packet will be delivered to the recipient in the same order, undamaged, and reliably? (Choose two.)

- ☒ acknowledgements
 - ☐ collision avoidance
 - ☒ window size adjustment
 - ☐ dynamic packet size adjustment
 - ☐ encapsulation packet size
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5 The network administrator for ABC company needs to send large amounts of information to many destinations at one time and does not need any verification that the data has been received. Which transport protocol would the administrator use?

- ☐ TCP
 - ☐ IP
 - ☒ UDP
 - ☐ IGRP
 - ☐ SMTP
 - ☐ SNMP
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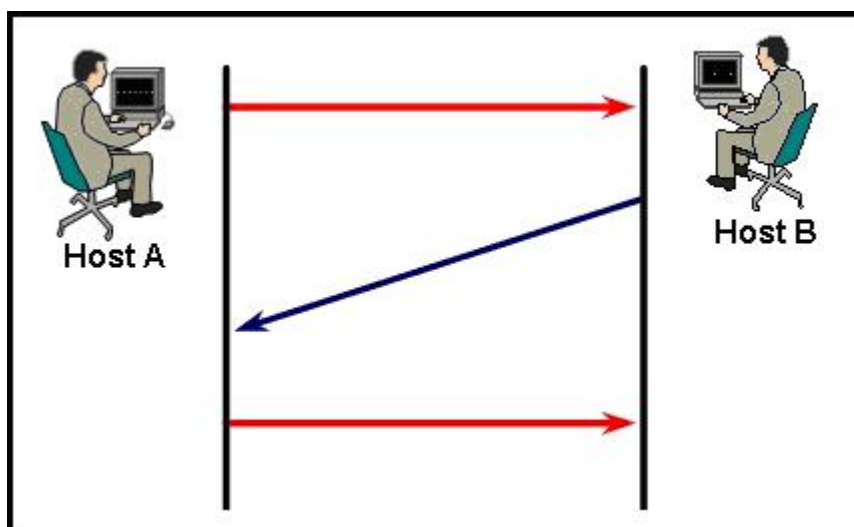
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Bit 0		Bit 15		Bit 16		Bit 31	
Source Port 13357				Destination Port 23			
Sequence Number 43693							
Acknowledgement Number 8732							
Header Length--		Reserved --		Code Bits --		Window 12000	
Checksum ---				Urgent ---			

Based on the transport layer header shown in the diagram, which of the following statements describe the established session? (Choose two.)

- ☐ This is a UDP header.
- ☒ This contains a Telnet request.
- ☐ This contains a TFTP data transfer.
- ☐ The return packet from this remote host will have an Acknowledgement Number of 43693.
- ☒ This is a TCP header.

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Which of the following best describe the transport layer three-way handshake? (Choose two.)

- ☒ TCP is established by using the three-way handshake to synchronize sequence numbers.
- ☐ UDP is established by using the three-way handshake to synchronize sequence numbers.
- ☐ The three-way handshake is used to establish a maximum data packet size to be sent, thus minimizing the error rate.
- ☐ The three-way handshake provides a global clock to establish window sizes.
- ☒ TCP may have different mechanisms to choose initial sequence numbers, and therefore without the three-way handshake, sequence numbers would be out of sync.

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With TCP/IP data encapsulation, which range of port numbers identifies all well-known applications?

- ☐ 0 to 255
- ☐ 256 to 1022
- ☒ 0 to 1023
- ☐ 1024 to 2047

☐ 49153 to 65535

What is dynamically assigned by the source host when forwarding data?

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- ☐ destination IP address
 - ☐ destination port number
 - ☐ default gateway address
 - ☐ source IP address
 - ☒ source port number
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10 Why are port numbers included in the TCP header of a segment?

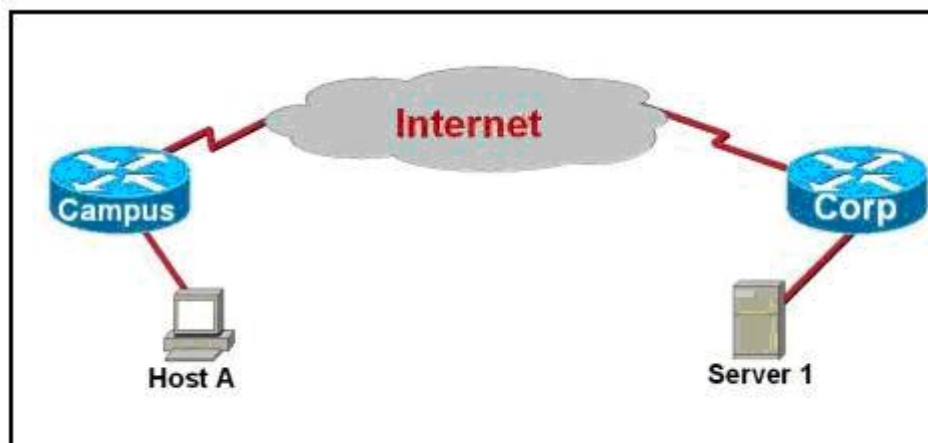
- ☐ to indicate the correct router interface that should be used to forward a segment
 - ☐ to identify which switch ports should receive or forward the segment
 - ☐ to determine which Layer 3 protocol should be used to encapsulate the data
 - ☒ to enable a receiving host to forward the data to the appropriate application
 - ☐ to allow the receiving host to assemble the packet in the proper order
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Which OSI model layer is responsible for regulating the flow of information from source to destination, reliably and accurately?

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- ☐ application
 - ☐ presentation
 - ☐ session
 - ☒ transport
 - ☐ network
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Refer to the exhibit. Host A is using FTP to download a large file from Server 1. During the download process, Server 1 does not receive an acknowledgment from Host A for several bytes of transferred data. What action will Server 1 take as a result?

- ☐ create a Layer 1 jam signal

- ☐ reach a timeout and resend the data that needs to be acknowledged
 - ☐ send a RESET bit to the host
 - ☐ change the window size in the Layer 4 header
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Why is flow control used for TCP data transfer?

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- ☐ to synchronize equipment speed for sent data
 - ☐ to synchronize and order sequence numbers so data is sent in complete numerical order
 - ☐ to prevent the receiver from being overwhelmed by incoming data
 - ☐ to synchronize window size on the server
 - ☐ to simplify data transfer to multiple hosts
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