COMP 3317 - QUIZ 4

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| Result: |  |  | Class: | COMP 3317 |
|  |  |  | Section: |  |
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Show your calculation process on the paper. Extra blank pages will be provided if needed.

1. Which protocol operates at the application layer of the TCP/IP model?

1. IP
2. TCP
3. HTTP
4. ICMP
5. What is a characteristic of UDP?
6. It establishes sessions with a three-way handshake.
7. It uses sequence numbers to reassemble segments.
8. It adds 20 bytes of overhead to application layer data.
9. It provides unreliable delivery of segments.
10. A student is sending files from a phone to a computer across a network. Which layer of the TCP/IP model is responsible for reassembling these messages as they are received on the computer?
11. application
12. transport
13. internet
14. network access
15. What protocol header information is used at the transport layer to identify a target application?
    1. port number
    2. IP address
    3. sequence number
    4. MAC address
16. What is the purpose of using a source port number in a TCP communication?
    1. to notify the remote device that the conversation is over
    2. to assemble the segments that arrived out of order
    3. to keep track of multiple conversations between devices
    4. to inquire for a nonreceived segment
17. When is UDP preferred to TCP?
    1. when a client sends a segment to a server
    2. when all the data must be fully received before any part of it is considered useful
    3. when an application can tolerate some loss of data during transmission
    4. when segments must arrive in a very specific sequence to be processed successfully
18. What are two roles of the transport layer in data communication on a network? (Choose two.)
    1. tracking the individual communication between applications on the source and destination hosts
    2. performing a cyclic redundancy check on the frame for errors
    3. identifying the proper application for each communication stream
    4. providing the interface between applications and the underlying network over which messages are transmitted
    5. providing frame delimiting to identify bits making up a frame
19. Which two services or protocols use the preferred UDP protocol for fast transmission and low overhead? (Choose two)
    1. DNS
    2. HTTP
    3. FTP
    4. SMTP
    5. VoIP
20. Which transport layer feature is used to guarantee session establishment?
    1. TCP port number
    2. UDP ACK flag
    3. TCP 3-way handshake
    4. UDP sequence number
21. Data is being sent from a source PC to a destination server. Which statements correctly describe the function of TCP or UDP in this situation? (Choose ALL correct statements.)
    1. The TCP source port number identifies the sending host on the network.
    2. The source port field identifies the running application or service that will handle data returning to the PC.
    3. UDP segments are encapsulated within IP packets for transport across the network.
    4. The UDP destination port number identifies the application or service on the server which will handle the data.
    5. TCP is the preferred protocol when a function requires lower network overhead.
    6. The TCP process running on the PC randomly selects the destination port when establishing a session with the server.