**The Transport and Application Layer**

**LATEST SUBMISSION GRADE**

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1.Question 1

**Ports 1024-49151 are known as \_\_\_\_\_\_ ports.**systemregistereddestinationsource

Question

**Ans:2**

**Correct**

Yep! Registered ports are used by less common applications.

2.Question 2

Question

**If the transmitting device would like for the receiving device to push currently buffered data to the application on the receiving end immediately, it would set the \_\_\_\_ flag.**SYNACKPSHFIN

**Ans:3**

**Correct**

You nailed it! The PSH flag ensures that the receiving end doesn't wait for any further data.

3.Question 3

Question

**A 32-bit number that's used to keep track of where you are in a sequence of TCP segments is known as a(n) \_\_\_\_\_\_ number.**acknowledgementTCPaddresssequenc

**Ans:4**

**Correct**

Great work! A sequence number is used to keep track of where you are in a series of TCP segments.

4.Question 4

Question

**The OSI network model has \_\_\_\_\_ layers.**threefivesixseven

**Ans:4**

**Correct**

Yep! Unlike our model, which focuses on five layers, the OSI model has seven layers.

5.Question 5

Question

**The concept of taking traffic that’s all aimed at the same node and delivering it to the proper receiving service is known as \_\_\_\_\_\_\_\_\_.**multiplexingdemultiplexingroutingencapsulation

**Ans:2**

**Correct**

Great work! Demultiplexing allows traffic intended for many different services to be delivered to the same node.

6.Question 6

Question

**A network has the ability to direct traffic toward all of the receiving services. What provides this ability in the transport layer?**DemultiplexingSocket addressFile TransferMultiplexing

**Ans:4**

**Correct**

Right on! Multiplexing in the transport layer means that nodes on a network have the ability to direct traffic toward many different receiving services.

7.Question 7

Question

**What port does the File Transfer Protocol (FTP) typically listen on?**214432580

**Ans:1**

**Correct**

You nailed it! FTP typically listens on port 21.

8.Question 8

Question

**A device receives a Transmission Control Protocol (TCP) packet. The device understands where the actual data payload begins. Which portion of the TCP header provides this information?**Acknowledgement numberSequence numberData offsetChecksum

**Ans:3**

**Correct**

Great work! The data offset field communicates how long the TCP header for a segment is. This causes the receiving network device to understand where the actual data payload begins.

9.Question 9

Question

**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 numberChecksumUrgent pointerSequence number

**Ans:4**

**Correct**

Nice job! The sequence number is used to keep track of where in a sequence of TCP segments that the packet is expected to be.

10.Question 10

Question

**A connection, at which layer, implies that every segment of data sent is acknowledged?**ApplicationNetworkData linkTransport

**Ans:4**

**Correct**

Right on! A connection at the transport layer implies that every segment of data sent is acknowledged.

11.Question 11

Question

**A communication sent through Transmission Control Protocol (TCP) arrives out of order. What allows the data to be put back together in the correct order?**ChecksumSequence numbersPreambleAcknowledgement number

**Ans:2**

**Correct**

Well done! Sequence numbers allow the data to be put back together in the correct order.

12.Question 12

Question

**How many Transmission Control Protocol (TCP) control flags are there?**7865

**Ans:3**

**Correct**

You got it! There are 6 TCP control flags.

13.Question 13

Question

**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?**ACKRSTURGPSH

**Ans:4**

**Correct**

You nailed it! The PSH flag will be used to push the information immediately.

14.Question 14

Question

**A device involved in a Transmission Control Protocol (TCP) connection is ready to close the connection. The other device in the connection agrees. What has occured?**Four-way handshakeTwo-way handshakeThree-way handshakeHandshake

**Ans:1**

**Correct**

Awesome! A four-way handshake occurs when the session is closed.