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/ [Pre-Mid-Semester Exam CS301 \(Section 1 + Section 2\) 19-08-2021 10.15 ti 11.15 AM](#)

**Started on** Thursday, 19 August 2021, 10:21 AM

**State** Finished

**Completed on** Thursday, 19 August 2021, 10:59 AM

**Time taken** 38 mins 19 secs

**Grade** 21.00 out of 30.00 (70%)

Question **1**

Complete

Mark 0.00 out of 1.00

Which is true for circuit switching?

- ☐ a. The bandwidth used is not constant.
- ☐ b. While switching, time is wasted in waiting.
- ☒ c. All of these
- ☐ d. The rate at which the data is transmitted is constant.

The correct answer is:

The rate at which the data is transmitted is constant.

Question **2**

Complete

Mark 1.00 out of 1.00

Ethernet frame consists of

- ☐ a. Default mask
- ☐ b. None of these
- ☐ c. IP address
- ☒ d. MAC address

The correct answer is:

MAC address

Question **3**

Complete

Mark 1.00 out of 1.00

Which of the following is a set of rules that governs the data communication in a computer network

- ☒ a. Protocols
- ☐ b. None of these
- ☐ c. RFCs
- ☐ d. Activity standards

The correct answer is:

Protocols

Question **4**

Complete

Mark 2.00 out of 2.00

What will be the propagation time when the distance between two nodes is 2400km? Assuming the communication media between the nodes is fiber cable and the light travels with a speed to be  $2 \times 10^8$  m/s in the cable.

- ☐ a. 2 ms
- ☐ b. None of these
- ☒ c. 12 ms
- ☐ d. 5 ms

The correct answer is:

12 ms

Question **5**

Complete

Mark 0.00 out of 2.00

A shared broadcast medium of transmission rate 5 Mbps is being shared by 10 users (U1, U2, ..., U10). Calculate the maximum transmission rate of each of the users if the channel access scheme used is FDMA. If instead of FDMA the scheme being used is CDMA then what will be the maximum transmission rate of each of the users?

- ☒ a. 50 Mbps, 5 Mbps
- ☐ b. None of these
- ☐ c. 500 Kbps, 5000 Kbps
- ☐ d. 5000 Kbps, 5000 Kbps

The correct answer is:  
500 Kbps, 5000 Kbps

Question **6**

Complete

Mark 1.00 out of 1.00

A landline telephone network is an example of..... network.

- ☒ a. Circuit switched
- ☐ b. Line switched
- ☐ c. Packet switched
- ☐ d. Both packet switched and circuit switched

The correct answer is:  
Circuit switched

Question **7**

Complete

Mark 1.00 out of 1.00

Which sub-layer of the data link layer performs data link functions that depend upon the type of medium?

- ☐ a. Logical link control sub-layer
- ☐ b. error control sub-layer
- ☒ c. Media access control sub-layer
- ☐ d. network interface control sub-layer

The correct answer is:

Media access control sub-layer

Question **8**

Complete

Mark 1.00 out of 1.00

Which address identifies a process on a host?

- ☒ a. port address
- ☐ b. physical address
- ☐ c. logical address
- ☐ d. specific address

The correct answer is:

port address

Question **9**

Complete

Mark 0.00 out of 1.00

What kind of transmission medium is most appropriate to carry data in a computer network that is exposed to electrical interference?

- ☒ a. Coaxial cable
- ☐ b. Optical fiber
- ☐ c. Microwave link
- ☐ d. Un-shielded twisted pair

The correct answer is:

Optical fiber

Question **10**

Complete

Mark 1.00 out of 1.00

The sharing of medium and its links by two or more devices is called

- ☐ a. Duplexing
- ☒ b. Multiplexing
- ☐ c. Fully duplexing
- ☐ d. Microplexing

The correct answer is:

Multiplexing

Question **11**

Complete

Mark 1.00 out of 1.00

Transmission delay not depends upon

- ☒ a. Distance between routers
- ☐ b. Bandwidth of the medium
- ☐ c. Packet length
- ☐ d. Transmission rate

The correct answer is:

Distance between routers

Question **12**

Complete

Mark 1.00 out of 1.00

In computer networks nodes are....

- ☐ a. the computer that originates/generates the data
- ☐ b. the computer that routes the data
- ☒ c. All of these
- ☐ d. the computer that terminates the data

The correct answer is:

All of these

Question **13**

Complete

Mark 1.00 out of 1.00

Communication between a computer and a speaker involves

- ☒ a. Simplex
- ☐ b. Full-duplex
- ☐ c. Automatic
- ☐ d. Half-duplex

The correct answer is:

Simplex

Question **14**

Complete

Mark 1.00 out of 1.00

The function of Digital Subscriber Line Access Multiplexer is to \_\_\_\_\_

- ☐ a. Amplify digital signals
- ☐ b. Convert digital signals into analog signals
- ☐ c. De-amplify digital signals
- ☒ d. Convert analog signals into digital signals

The correct answer is:

Convert analog signals into digital signals

Question **15**

Complete

Mark 1.00 out of 1.00

Which of the following task is not done by data link layer?

- ☐ a. Flow control
- ☒ b. Encoding
- ☐ c. Framing
- ☐ d. Error control

The correct answer is:

Encoding

Question **16**

Complete

Mark 0.00 out of 1.00

Which is of the following statement is incorrect,

A shared broadcast media of transmission bandwidth 20 Mbps is shared by 100 users then,

- ☐ a. Using TDMA scheme, each of the users have an access to 200 Kbps of bandwidth
- ☒ b. Using CDMA scheme, each of the users have an access to 20 Mbps of bandwidth
- ☐ c. Using CDMA scheme, each of the users have an access to 200 Kbps of bandwidth
- ☐ d. Using FDMA scheme, each of the users have an access to 200 Kbps of bandwidth

The correct answer is:

Using CDMA scheme, each of the users have an access to 200 Kbps of bandwidth



Question **17**

Complete

Mark 0.00 out of 1.00

Optical Network Terminator is connected to splitter using \_\_\_\_\_

- ☐ a. Optical cable
- ☐ b. Twisted pair cable
- ☐ c. microwave link
- ☒ d. hybrid fiber co-axial cable

The correct answer is:

Optical cable

Question **18**

Complete

Mark 1.00 out of 1.00

In link layer, parity bits are used for

- ☒ a. to detect errors
- ☐ b. to identify the user
- ☐ c. encryption of data
- ☐ d. to transmit data faster

The correct answer is:

to detect errors

Question **19**

Complete

Mark 1.00 out of 1.00

The number of bits in IPV4 address, IPV6 address, MAC address and Port address are

- ☐ a. 32, 128, 64, 16
- ☐ b. 128, 32, 48, 16
- ☐ c. 32, 128, 48, 32
- ☒ d. 32, 128, 48, 16

The correct answer is:

32, 128, 48, 16

Question **20**

Complete

Mark 1.00 out of 1.00

Which physical media provides the highest transmission speed in a network?

- ☐ a. co-axial cable
- ☒ b. optical fiber
- ☐ c. electrical cable
- ☐ d. twisted pair cable

The correct answer is:

optical fiber

Question **21**

Complete

Mark 0.00 out of 3.00

What are the propagation time and the transmission time for a 5Mbyte message (an image) if the transmission rate of the network is 1Mbps? Assume that the distance between the sender and the receiver is 8000 km and that light travels at  $4 \times 10^9$  m/s.

- ☐ a. 50msecs, 40msecs
- ☒ b. 2msecs, 40msecs
- ☐ c. 2msecs, 40secs
- ☐ d. 50msecs, 40secs

The correct answer is:  
2msecs, 40secs

Question **22**

Complete

Mark 3.00 out of 3.00

The message 11001001 is to be transmitted using CRC polynomial  $x^3 + 1$  to protect it from errors. The message that should be transmitted after appending the CRC code with the original data is

- ☐ a. 1100001010
- ☒ b. None of these
- ☐ c. 1100001011
- ☐ d. 1100001110

The correct answer is:  
None of these

Question **23**

Complete

Mark 1.00 out of 1.00

Which is not true for Packet switching?

- ☐ a. Installation costs of packet switching are expensive.
- ☐ b. Multiple users can use the same channel while transferring their packets.
- ☒ c. A dedicated path is followed throughout the session.
- ☐ d. The delivery of these packets becomes easy when complicated protocols are used.

The correct answer is:

A dedicated path is followed throughout the session.

Question **24**

Complete

Mark 1.00 out of 1.00

Header of a frame generally contains

- ☒ a. All of these
- ☐ b. MAC addresses
- ☐ c. Synchronization bytes
- ☐ d. Frame identifier

The correct answer is:

All of these

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**Started on** Friday, 12 November 2021, 1:20 PM

**State** Finished

**Completed on** Friday, 12 November 2021, 1:28 PM

**Time taken** 8 mins 30 secs

**Grade** 7.00 out of 10.00 (70%)

Question **1**

Complete

Mark 1.00 out of 1.00

The well-known port addresses are assigned to the

- ☐ a. None of these
- ☒ b. Destination
- ☐ c. Source
- ☐ d. Routers

Question **2**

Complete

Mark 1.00 out of 1.00

Which fields helps to check rearrangement of the fragments in IPV4?

- ☐ a. Protocol field value
- ☐ b. Checksum
- ☒ c. Fragment Offset
- ☐ d. Flags

Question **3**

Complete

Mark 1.00 out of 1.00

A email service uses which one of the following transport layer protocol?

- ☐ a. UDP
- ☐ b. Both TCP and UDP
- ☐ c. HTTP
- ☒ d. TCP

Question **4**

Complete

Mark 1.00 out of 1.00

The traffic field of IPV6 is similar to which field in the IPV4 header?

- ☐ a. Fragmentation field
- ☒ b. Type of service
- ☐ c. Option field
- ☐ d. Fast switching

Question **5**

Complete

Mark 1.00 out of 1.00

Fragmentation is done in ..... layer.

- ☐ a. Transport Layer
- ☐ b. Data link Layer
- ☐ c. Physical layer
- ☒ d. Network Layer

Question **6**

Complete

Mark 1.00 out of 1.00

Which of these is not a type of error-reporting message?

- ☐ a. Destination unreachable
- ☒ b. Router error
- ☐ c. Source quench
- ☐ d. Time exceeded

Question **7**

Complete

Mark 0.00 out of 1.00

Which of the following is incorrect about Network Address Translation?

- ☐ a. Router will do NAT translation without configuration.
- ☐ b. NAT is a process in which one or more local IP address is translated into one or more Global IP address and vice versa.
- ☐ c. Certain application will not function while NAT is enabled.
- ☒ d. NAT results in switching path delays.

Question **8**

Complete

Mark 0.00 out of 1.00

Routing inside a single administrative domain is called as..... routing.

- ☒ a. Path Vector
- ☐ b. Intra-domain
- ☐ c. Inter-domain
- ☐ d. None of these

Question **9**

Complete

Mark 0.00 out of 1.00

In an IPV4 packet, the value of HLEN is 1010 in binary. How many bytes of options are being carried by this packet?

- ☐ a. 20 bytes
- ☐ b. 12 bytes
- ☒ c. 10 bytes
- ☐ d. 32 bytes

Question **10**

Complete

Mark 1.00 out of 1.00

Which of the following is true for Address Resolution Protocol (ARP)?

- ☐ a. ARP request is broadcast and ARP reply is also broadcast.
- ☒ b. ARP request is broadcast and ARP reply is unicast.
- ☐ c. ARP request is unicast and ARP reply is also unicast.
- ☐ d. ARP request is unicast and ARP reply is broadcast.

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/ [Continuous LAB Assessment 24.08.2021 4.15pm to 4.30pm](#)

**Started on** Tuesday, 24 August 2021, 4:19 PM

**State** Finished

**Completed on** Tuesday, 24 August 2021, 4:25 PM

**Time taken** 6 mins

**Grade** 8.00 out of 10.00 (80%)

Question **1**

Complete

Mark 1.00 out of 1.00

What will be the propagation time when the distance between two points is 2400km? Assuming the propagation speed to be  $4 \times 10^8$  m/s in cable

- ☐ a. 2ms
- ☐ b. 5ms
- ☐ c. 1ms
- ☒ d. 6ms

The correct answer is:

6ms

Question **2**

Complete

Mark 1.00 out of 1.00

The \_\_\_\_\_ layer links network/user support layers by segmenting and rearranging the data.

- ☐ a. application layer
- ☒ b. transport layer
- ☐ c. session Layer
- ☐ d. network layer

The correct answer is:

transport layer

Question **3**

Complete

Mark 0.00 out of 1.00

The OSI model was developed \_\_\_\_ TCP/IP model.

- ☐ a. None of these
- ☐ b. after
- ☐ c. simultaneous to
- ☒ d. prior to

The correct answer is:  
after

Question **4**

Complete

Mark 1.00 out of 1.00

Which multiple access techniques is used by IEEE 802.11 standards for wireless LANs?

- ☐ a. CSMA
- ☒ b. CSMA/CA
- ☐ c. ALOHA
- ☐ d. CSMA/CD

The correct answer is:  
CSMA/CA

Question **5**

Complete

Mark 1.00 out of 1.00

In reference to OSI model, TCP/IP model does not have \_\_\_\_

- ☐ a. application layer
- ☐ b. transport layer
- ☒ c. session layer
- ☐ d. application layer

The correct answer is:  
session layer

Question **6**

Complete

Mark 1.00 out of 1.00

Which of the following option is correct?

In wireless distribution system

- ☐ a. only one access point exists
- ☐ b. access points are not required
- ☒ c. multiple access points are inter-connected with each other
- ☐ d. there is no access point

The correct answer is:

multiple access points are inter-connected with each other

Question **7**

Complete

Mark 1.00 out of 1.00

Which layer is responsible for the process to process delivery in a general network model?

- ☒ a. transport layer
- ☐ b. network layer
- ☐ c. session layer
- ☐ d. data link layer

The correct answer is:

transport layer

Question **8**

Complete

Mark 1.00 out of 1.00

Transmission data rate is decided by \_\_\_\_\_

- ☐ a. network layer
- ☐ b. data link layer
- ☒ c. physical layer
- ☐ d. transport layer

The correct answer is:  
physical layer

Question **9**

Complete

Mark 1.00 out of 1.00

There are  $n$  stations in a slotted LAN. Each station attempts to transmit with a probability  $p$  in each time slot. What is the probability that only one station transmits in a given time slot?

- ☐ a.  $1-(1-p)^{(n-1)}$
- ☐ b.  $(1-p)^{(n-1)}$
- ☐ c.  $p(1-p)^{(n-1)}$
- ☒ d.  $np(1-p)^{(n-1)}$

The correct answer is:  
 $np(1-p)^{(n-1)}$

Question **10**

Complete

Mark 0.00 out of 1.00

Which multiple access techniques is used by Ethernet standards for wireless LANs

- ☐ a. CSMA
- ☐ b. CSMA/CD
- ☐ c. ALOHA
- ☒ d. CSMA/CA

The correct answer is:  
CSMA/CD

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**Started on** Thursday, 28 October 2021, 4:21 PM

**State** Finished

**Completed on** Thursday, 28 October 2021, 4:28 PM

**Time taken** 7 mins 19 secs

**Grade** 8.00 out of 10.00 (80%)

Question **1**

Complete

Mark 1.00 out of 1.00

**Which one of the following is not a function of network layer?**

- ☐ a. routing
- ☐ b. congestion control
- ☒ c. error control
- ☐ d. inter-networking

Question **2**

Complete

Mark 0.00 out of 1.00

**For a given subnet mask 255.128.0.0, what is the number of subnets?**

- ☐ a. 8
- ☐ b. 2
- ☒ c. 4
- ☐ d. 6

Question **3**

Complete

Mark 1.00 out of 1.00

In a given subnet mask 255.0.0.0, what is the number of Host ID bits?

- ☐ a. 21
- ☒ b. 24
- ☐ c. 12
- ☐ d. 221

Question **4**

Complete

Mark 1.00 out of 1.00

In class C classful IPv4 addressing format, the number of networks allowed under Class C addresses is

- ☐ a.  **$2^{24}$**
- ☐ b.  **$2^7$**
- ☐ c.  **$2^{14}$**
- ☒ d.  **$2^{21}$**

Question **5**

Complete

Mark 1.00 out of 1.00

Error control is responsibility of which OSI layers

- ☐ a. **Network and Transport layer**
- ☐ b. **Physical and Data link layer**
- ☐ c. **All of these**
- ☒ d. **Data link and Transport layer**

Question **6**

Complete

Mark 1.00 out of 1.00

Which one of the following protocol is NOT used to resolve one form of address to another one?

- ☐ a. **DNS**
- ☐ b. **ARP**
- ☐ c. **RARP**
- ☒ d. **DHCP**

Question **7**

Complete

Mark 1.00 out of 1.00

While configuring the router, the IP address assigned to one port is 201.14.2.1/23. LAN1 is attached to this port of the router. Which of the following IP addresses are valid on this LAN1 interface,

**I1: 201.14.1.100**  
**I2: 201.14.1.3**  
**I3: 201.14.2.2**  
**I4: 201.14.3.0**

- ☐ a. Only I2 and I3
- ☐ b. Only I1 and I2
- ☒ c. Only I3 and I4
- ☐ d. Only I1 and I3



Question **8**

Complete

Mark 0.00 out of 1.00

Find out the invalid subnet mask from the following

- ☐ a. **223.0.0.0**
- ☐ b. **None of these**
- ☒ c. **255.255.255.252**
- ☐ d. **255.240.0.0**

Question **9**

Complete

Mark 1.00 out of 1.00

In the even parity, find the parity bit of data 1001001001.

- ☐ a. **1**
- ☐ b. **X**
- ☒ c. **0**
- ☐ d. **None of these**

Question **10**

Complete

Mark 1.00 out of 1.00

In the IPV4 addressing format, the number of hosts allowed under Class A addresses

- ☐ a.  **$2^{32-2}$**
- ☒ b.  **$2^{24-2}$**
- ☐ c.  **$2^{16-2}$**
- ☐ d.  **$2^{8-2}$**

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**Started on** Tuesday, 6 September 2022, 2:00 PM

**State** Finished

**Completed on** Tuesday, 6 September 2022, 2:53 PM

**Time taken** 53 mins 8 secs

Question **1**

Complete

Marked out of 1.00

Which of the following statement is correct for Slotted Aloha

- ☐ a. divide time into discrete time intervals
- ☐ b. None of these
- ☐ c. require global time synchronization
- ☒ d. divide time into discrete time intervals and also requires global time synchronization

Question **2**

Complete

Marked out of 1.00

Which of the following statements is not applicable for cable internet access?

- ☒ a. It includes Hybrid Fiber Co-axials
- ☐ b. Analog signal is converted to digital signal in DSLAM
- ☐ c. Cable modem connects home PC to Ethernet port
- ☐ d. It is a shared broadcast medium

Question **3**

Complete

Marked out of 1.00

What is the role of logical link control sublayer in layer 2?

- ☐ a. Connection Establishment
- ☒ b. Sequencing
- ☐ c. Error detection
- ☐ d. Acknowledgment

Question **4**

Complete

Marked out of 1.00

In slotted ALOHA, the vulnerable time is \_\_\_\_\_ the frame transmission time.

- ☐ a. half of a frame transmission time
- ☐ b. twice of a frame transmission time
- ☒ c. same as the a frame transmission time
- ☐ d. None of these

Question **5**

Complete

Marked out of 1.00

What is the primary purpose of a virtual local area networks?

- ☐ a. To create a virtual private network
- ☒ b. Demonstrating the proper layout for network
- ☐ c. Segmenting a network inside a switch or device
- ☐ d. Simulating a network

Question **6**

Complete

Marked out of 1.00

In Carrier Sense Multiple Access which node senses the channel, if idle it sends the data, otherwise it checks the medium after a random amount of time (not continuously) and transmits when found idle.

- ☐ a. 1-persistent
- ☐ b. O-persistent
- ☒ c. Non-persistent
- ☐ d. P-persistent

Question **7**

Complete

Marked out of 1.00

The time required to examine the packet's header and determine where to direct the packet is part of \_\_\_\_\_

- ☐ a. Queuing delay
- ☒ b. Transmission delay
- ☐ c. Propagation delay
- ☐ d. Processing delay

Question **8**

Complete

Marked out of 1.00

Layer that translates between physical (MAC) and logical addresses is .....

- ☐ a. Network
- ☐ b. Transport
- ☐ c. Physical
- ☒ d. Datalink

Question **9**

Complete

Marked out of 1.00

Which of the following protocols is the bit-oriented protocol?

- ☐ a. HTTP
- ☐ b. SSL
- ☐ c. HDLC
- ☒ d. All of these

Question **10**

Complete

Marked out of 1.00

What are not the responsibilities of the Data link Layer?

- ☒ a. IP addressing
- ☐ b. MAC addressing
- ☐ c. Error detection
- ☐ d. Framing



Question **11**

Complete

Marked out of 1.00

What is the total vulnerable time value of pure Aloha?

- ☐ a. None of these
- ☐ b.  $T_{fr}$
- ☒ c.  $2 \times T_{fr}$
- ☐ d.  $\frac{1}{2} T_{fr}$

Question **12**

Complete

Marked out of 1.00

What are not the responsibilities of the Network Layer?

- ☐ a. Routing
- ☐ b. IP addressing
- ☐ c. Path determination
- ☒ d. Framing

Question **13**

Complete

Marked out of 1.00

Which are end system devices

- ☒ a. All of these
- ☐ b. smartphones
- ☐ c. web servers
- ☐ d. mail servers



Question **14**

Complete

Marked out of 1.00

The OSI model was developed \_\_\_\_ TCP/IP model.

- ☐ a. with no link to TCP/IP
- ☒ b. prior to
- ☐ c. simultaneous to
- ☐ d. after

Question **15**

Complete

Marked out of 2.00

The sender employs the "Go Back 10 ARQ" scheme. A 50 Kbps link has a propagation speed of  $2 \times 10^8$  m/s. The transmitter and receiver is at 2000 km distance from each other. Each frame is 100 bytes long, assuming no transmission delay what will be the minimum round trip time delay for transmission of 1 million bits?

- ☒ a. 20 ms
- ☐ b. None of these
- ☐ c. 10 ms
- ☐ d. 50 ms

Question **16**

Complete

Marked out of 1.00

The length of the .....of a specific packet will depend on the number of earlier-arriving packets that are queued and waiting for transmission onto the link.

- ☐ a. None of these
- ☐ b. Propagation delay
- ☐ c. Transmission delay
- ☒ d. Queuing delay

Question **17**

Complete

Marked out of 1.00

Which multiple access techniques is used by IEEE 802.11 standards for wireless LANs?

- ☐ a. CSMA
- ☐ b. ALOHA
- ☒ c. CSMA/CA
- ☐ d. CSMA/CD

Question **18**

Complete

Marked out of 1.00

In the transfer of files between four pairs of client-servers through a common transmission channel of transmission rate 1 Mbps. All the server access links have a transmission rate of 2 Mbps and all the client access links have a transmission rate of 2.5 Mbps, the throughput of this network will be

- ☒ a. 2.5 Mbps
- ☐ b. None of these
- ☐ c. 0.25 Mbps
- ☐ d. 2 Mbps

Question **19**

Complete

Marked out of 1.00

A sender-receiver employs even parity for error correction scheme, what will be the parity bit for 1001011?

- ☒ a. 1
- ☐ b. 0
- ☐ c. None of these
- ☐ d. 2



Question **20**

Complete

Marked out of 2.00

Consider the Go-back-N protocol with a sender's window size of '8'. Suppose at time 't' the next frame in the buffer (i.e. the next inorder frame) the receiver is expecting has a sequence No. 5. Assume that the medium does not reorder the messages. What is the possible set of sequence number inside the sender's window at time 't'. Assume the sender has already received acknowledgment for all the previously transmitted frames.

- ☐ a. [4, 12]
- ☐ b. None of these
- ☒ c. [5, 12]
- ☐ d. [5, 13]

Question **21**

Complete

Marked out of 1.00

A three-layer switch can be called as.....

- ☐ a. Bridge
- ☒ b. Router
- ☐ c. None of these
- ☐ d. Repeater

Question **22**

Complete

Marked out of 1.00

What are not the responsibilities of the Data link Layer?

- ☒ a. IP addressing
- ☐ b. MAC addressing
- ☐ c. Error detection
- ☐ d. Framing

Question **23**

Complete

Marked out of 1.00

In reference to OSI model, TCP/IP model does not have \_\_\_\_\_

- ☐ a. network layer
- ☒ b. transport layer
- ☐ c. application layer
- ☐ d. session layer

Question **24**

Complete

Marked out of 1.00

What will be the propagation time when the distance between two points is 2400km? Assuming the propagation speed to be  $4 \times 10^8$  m/s in cable.

- ☐ a. 1 ms
- ☒ b. 6ms
- ☐ c. 2 ms
- ☐ d. 5ms

Question **25**

Complete

Marked out of 1.00

Which is of the following statement is incorrect, if the transmission bandwidth of a shared broadcast media of 50 Mbps is shared by 500 users then,

- ☐ a. Using FDMA scheme, each of the users have an access to 100 Kbps of bandwidth
- ☒ b. Using CDMA scheme, each of the users have an access to 100 Kbps of bandwidth
- ☐ c. Using TDMA scheme, each of the users have an access to 100 Kbps of bandwidth
- ☐ d. Using CDMA scheme, each of the users have an access to 50 Mbps of bandwidth

Question **26**

Complete

Marked out of 1.00

The functions of \_\_\_\_\_ layer in the OSI model are handled by the transport layer itself in TCP/IP.

- ☐ a. network layer and presentation
- ☐ b. application layer and session
- ☒ c. presentation and session
- ☐ d. transport layer and session

Question **27**

Complete

Marked out of 1.00

The \_\_\_\_ layer links network/user support layers by segmenting and rearranging the data.

- ☐ a. Session Layer
- ☒ b. Network Layer
- ☐ c. Transport Layer
- ☐ d. Application Layer

Question **28**

Complete

Marked out of 1.00

Which is true for Circuit Switching?

- ☐ a. The bandwidth used is not fixed.
- ☐ b. The bandwidth used is not fixed.
- ☐ c. The bandwidth used is not fixed.
- ☒ d. All true

Question **29**

Complete

Marked out of 1.00

Transmission data rate is decided by \_\_\_\_\_.

- ☐ a. data link layer
- ☐ b. transport layer
- ☐ c. network layer
- ☒ d. physical layer

Question **30**

Complete

Marked out of 1.00

In Carrier Sense Multiple Access, which CSMA scheme senses the channel, if idle it sends the data, otherwise it continuously keeps on checking the medium for being idle and transmits unconditionally as soon as the channel gets idle.

- ☐ a. O-persistent
- ☒ b. 1-persistent
- ☐ c. P-persistent
- ☐ d. Non-persistent

Question **31**

Complete

Marked out of 1.00

Error detection and correction are offered by both

- ☐ a. Network Layer and Transport Layer
- ☐ b. Data link layer and Network Layer
- ☒ c. Physical Layer and Data link Layer
- ☐ d. Data link layer and Transport Layer

Question **32**

Complete

Marked out of 1.00

To avoid collisions on wireless networks, \_\_\_\_\_ was invented.

- ☐ a. CSMA/CD
- ☒ b. CSMA/CA
- ☐ c. Ethernet
- ☐ d. None of these

Question **33**

Complete

Marked out of 1.00

Which is not true for Packet switching?

- ☐ a. Multiple users can use the same channel while transferring their packets.
- ☒ b. Multiple users can use the same channel while transferring their packets.
- ☐ c. The delivery of these packets becomes easy when complicated protocols are used.
- ☐ d. Installation costs of packet switching are expensive.

Question **34**

Complete

Marked out of 1.00

The technique of temporarily delaying acknowledgements so that they can be hooked onto the next outgoing data frame is called

- ☐ a. Cyclic redundancy check
- ☐ b. None of these
- ☐ c. Piggybacking
- ☒ d. Parity check

Question **35**

Complete

Marked out of 1.00

In \_\_\_\_\_, each station is forced to send only at the beginning of the time slot.

- ☐ a. Pure Aloha
- ☒ b. Slotted Aloha
- ☐ c. CSMA/CD
- ☐ d. CSMA/CA

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/ [QUIZ 3\\_CS301 \(Section 1 + Section 2\)\\_04-11-2022\\_11.00 PM to 11.15 PM](#)

**Started on** Friday, 4 November 2022, 11:00 AM

**State** Finished

**Completed on** Friday, 4 November 2022, 11:14 AM

**Time taken** 14 mins 52 secs

**Grade** **12.00** out of 15.00 (**80%**)

Question **1**

Complete

Mark 1.00 out of 1.00

If the value in protocol field is 2 in IPV4 header, the protocol used is.....?

- ☐ a. ICMP
- ☐ b. TCP
- ☐ c. UDP
- ☒ d. IGMP

Question **2**

Complete

Mark 1.00 out of 1.00

What should be the flag value to indicate the last fragment?

- ☐ a. Time to live value
- ☐ b. M = 1
- ☐ c. None of these
- ☒ d. M = 0



Question **3**

Complete

Mark 1.00 out of 1.00

The traffic field of IPV6 is similar to which field in the IPV4 header?

- ☐ a. Option field
- ☐ b. Fragmentation field
- ☒ c. Type of service
- ☐ d. Fast switching

Question **4**

Complete

Mark 1.00 out of 1.00

What is the network address of the subnet which contains a host with the IP address 192.168.12.198 with subnet mask 255.255.255.0?

- ☐ a. 192.168.0.0
- ☐ b. 192.168.12.12
- ☒ c. 192.168.12.0
- ☐ d. 192.168.12.255

Question **5**

Complete

Mark 1.00 out of 1.00

Which fields helps to check rearrangement of the fragments in IPV4?

- ☐ a. Flags
- ☐ b. Checksum
- ☒ c. Fragment Offset
- ☐ d. Protocol field value

Question **6**

Complete

Mark 1.00 out of 1.00

Consider three devices A, B, and C with IP addresses 100.10.5.2, 100.10.5.5 and 100.10.5.6 respectively. The subnet mask is set to 255.255.255.252 for all the three devices. Which one of the following is true?

- ☐ a. Only A and B belong to same subnet
- ☐ b. A, B, and C all belongs to three different subnets
- ☐ c. A, B, and C all belongs to the same subnet
- ☒ d. only B and C belongs to same subnet

Question **7**

Complete

Mark 0.00 out of 1.00

Which of the following is incorrect about NAT?

- ☐ a. Static Nat creates affixed translation of private addresses to public addresses.
- ☐ b. NAT does not conserve IPV4 addresses.
- ☐ c. NAT helps to reuse private IP addresses.
- ☒ d. Static NAT allows the user to configure one-to-one translation.

Question **8**

Complete

Mark 0.00 out of 1.00

Suppose the IP address of device **1** is 10.10.36.1 and device **2** is 10.10.12.1 and the subnet mask used is 255.255.0.0. Both the devices will be able to communicate with each other using

- ☐ a. None of these
- ☒ b. Router
- ☐ c. Switch
- ☐ d. Hub

Question **9**

Complete

Mark 1.00 out of 1.00

Two popular routing tables are Distance Vector and Link State routing, which of the following are true?

1. count-to-infinity is a problem only is distance vector and not in link state routing.
2. In link state, the shortest path algorithm is run only at one node.
3. In distance vector, the shortest path algorithm is run only at one node.
4. Distance vector require lesser number of network message than link state.

- ☐ a. 1, 2 and 4 only
- ☐ b. 1, 3, and 4 only
- ☐ c. 2 and 3 only
- ☒ d. 1 and 4 only

Question **10**

Complete

Mark 1.00 out of 1.00

In an IPV4 packet, the value of HLEN is 1010 in binary. How many bytes of options are being carried by this packet?

- ☐ a. 12 bytes
- ☒ b. 20 bytes
- ☐ c. 10 bytes
- ☐ d. 32 bytes

Question **11**

Complete

Mark 1.00 out of 1.00

The following is a dump of a UDP header in hexadecimal format

0632000D001EE217

What is the total length of the datagram?

- ☐ a. 22 bits
- ☒ b. 22 bytes
- ☐ c. 8 bytes
- ☐ d. 20 bytes

Question **12**

Complete

Mark 0.00 out of 1.00

An organization is granted the block 130.34.12.64/26. Find the maximum number of host addresses that can be assigned for this network?

- ☒ a. 32
- ☐ b. 18
- ☐ c. 256
- ☐ d. None of these

Question **13**

Complete

Mark 1.00 out of 1.00

Which of these is not a type of error-reporting message?

- ☐ a. Source quench
- ☒ b. Router error
- ☐ c. Time exceeded
- ☐ d. Destination unreachable

Question **14**

Complete

Mark 1.00 out of 1.00

What is the type of the destination address of these Ethernet address 4A:30:10:21:10:1A

- ☐ a. Broadcast
- ☐ b. Not a valid address
- ☐ c. Multicast
- ☒ d. Unicast

Question **15**

Complete

Mark 1.00 out of 1.00

Suppose the IP address of device **1** is 162.198.2.1 and device **2** is 162.198.3.2 and the subnet mask used is 255.255.255.0. Both the devices will be able to communicate with each other using switch

- ☐ a. True
- ☒ b. False

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