Take Test: Sample Test

Test Information

Description	This is a sample test. The objective of it is to familiarize you with the exam. It wont be graded.
Instructions	Please choose the correct answer for each question. You can also include an optional justification for your choices at the end of the exam (or uploading them). The justification will not be corrected if you choose the right answer so do not waste your time if you are sure about your choice. The justification could help in giving a partial grade if your choice was wrong but you were able to convince me about your reasoning.
Timed Test	This test has a time limit of 1 hour.This test will save and submit automatically when the time expires. Warnings appear when **half the time**, **5 minutes**, **1 minute**, and **30 seconds** remain.
Multiple Attempts	Not allowed. This test can only be taken once.
Force Completion	This test can be saved and resumed at any point until time has expired. The timer will continue to run if you leave the test.
	Your answers are saved automatically.

QUESTION 1 — 1 points — Saved

Which of the following networking technologies uses the circuit switching approach?

- ○ Ethernet
- ○ ATM
- ○ IP
- ◉ None of the above

QUESTION 2 — 1 points — Saved

Which of the following network nodes typically implement application layer protocols such as HTTP?

- ○ I. Routers
- ◉ II. Hosts
- ○ III. Hubs
- ○ IV. Switches / bridges

QUESTION 3 — 1 points — Saved

Which of the following switching approaches is used in a network which moves data between communication ends in the form of packets without guaranteeing the delivery of these packets?

- ○ I. Virtual circuit packet switching
- ○ II. Power switching
- ○ III. Circuit switching
- ◉ IV. Datagram packet switching

QUESTION 4 — 1 points — Saved

In the CIDR addressing scheme, How to determine the network ID part of an IP address?

- ○ I. Using subnet mask
- ○ II. Using a prefix length
- ◉ III. Both choices above are correct
- ○ IV. None of the above choices are correct

QUESTION 5 — 1 points — Saved

When a networking device moves from one network to another, which of the following addresses changes?

- (●) I. The device's IP address
- ( ) II. The user Post address
- ( ) III. The device's MAC address
- ( ) IV. The user Mail address

QUESTION 6 — 1 points — Saved

A formatted bit-sequence that carry a message in its payload and has control information to guide the delivery of the message:

- ( ) I. An application
- ( ) II. An envelope
- ( ) III. A link
- (●) IV. A packet

QUESTION 7 — 1 points — Saved

The networking device that operates on Layer 3 of the OSI model and can link different networks by forwarding packets according to the information included in the Layer 3 header

- ( ) I. An access point
- (●) II. A router
- ( ) III. A hub
- ( ) IV. A switch / A bridge

QUESTION 8 — 1 points — Saved

The main task of network layer is

- ( ) I. Control the physical media access among nodes in a single network
- ( ) II. Maintaining Security and Privacy
- ( ) III. Perform error detection to the whole transmitted data
- (●) IV. Routing packets across multiple networks

QUESTION 9 — 1 points — Saved

If two nodes, Node A and Node B, are using CSMA/CD. Which of the following is true:

- ( ) I. Node A should sense for carrier before sending and only send after no carrier presents
- ( ) II. If Node A is using the channel, it should keep transmitting for at least 2*propagation delay
- ( ) III. Node B can transmit at any time as long as it does not sense a carrier
- (●) IV. All of the above is correct

QUESTION 10 — 1 points — Saved

The transmission mode that allows communicating hosts to send and receive messages from a transmission medium but only at different times:

- ( ) I. Full Duplex
- (●) II. Half Duplex
- ( ) III. Simplex
- ( ) IV. Complex

QUESTION 11 — 1 points — Saved

In error detection context, the word that resulted from adding redundant bits to the original word for error detection purposes

- ( ) I. Dataword
- ( ) II. Syndrome
- (●) III. Codeword

IV. Divider

QUESTION 12 — 1 points — Saved

In the classful IP addressing scheme, which of the following is true

I. There are more Class A networks than Class C

II. The number of bits in the Network ID part of Class A addresses is more than the network ID bits in Class C addresses

III. An organization that has one Class A address has more host addresses than another organization that has one Class C address

IV. None of the above are true

QUESTION 13 — 1 points — Saved

Which of the following switching approaches is used in a network which moves data between communication ends in the form of packets and does not guarantee in-order delivery of these packets?

I. Virtual circuit packet switching

II. Power switching

III. Datagram packet switching

IV. Circuit switching

QUESTION 14 — 1 points — Saved

Time for a packet to go from sender to destination and return

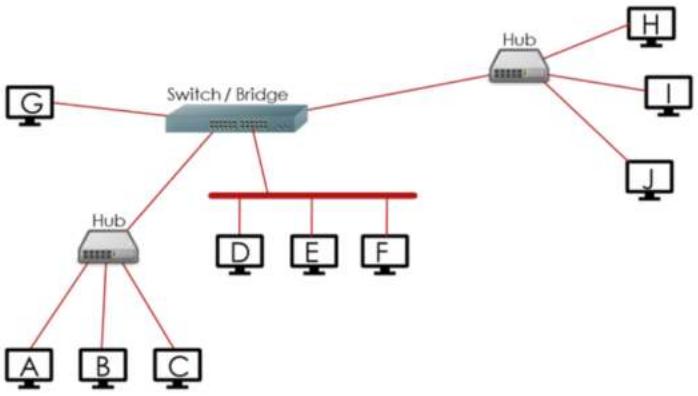
I. Bandwidth

II. Latency

III. Round Trip Time (RTT)

IV. Propagation delay

QUESTION 15 — 1 points — Saved



In the network represented by the figure above. If host A sends a frame to host H, which of the following will see the frame beside H? (Assume that the switch already have learned the addresses of all hosts in the network)

I. Host B

II. Host G

III. Both hosts mentioned in the previous choices

IV. None of the choices are correct

QUESTION 16 — 1 points — Save Answer

A 10 Mbps link between a video server and a client is established. If the distance between the client and the server is 750 Kilometer and if receiving a video file has a latency of 10 seconds. Find the size of the video file (assume that the speed of light is 2.8*10^8 m/s and no queuing delay. Note: 1 Kilometer = 10^3 meter)

I. 100 Megabit

II. 300 Megabit

III. 500 Megabit

IV. 700 Megabit

QUESTION 17 — 1 points — Saved

The destination MAC address "17:18:19:10:11:12" represents

- I. A unicast address
- (●) II. A multicast address
- III. A broadcast address
- IV. An IP address

QUESTION 18 — 1 points — Saved

What is the minimum hamming distance for the codeword set {000000, 010011, 101100, 111111}

- I. 1
- (●) II. 3
- III. 5
- IV. 6

QUESTION 19 — 1 points — Saved

Multiple nodes are using CSMA/CD to access a shared channel. One of the nodes (let's call it Node A) has been trying to send a frame 8 times but every try resulted in a collision. How long would Node A wait before retrying to send the frame again (the back-off time after the 4^{th} collision)?

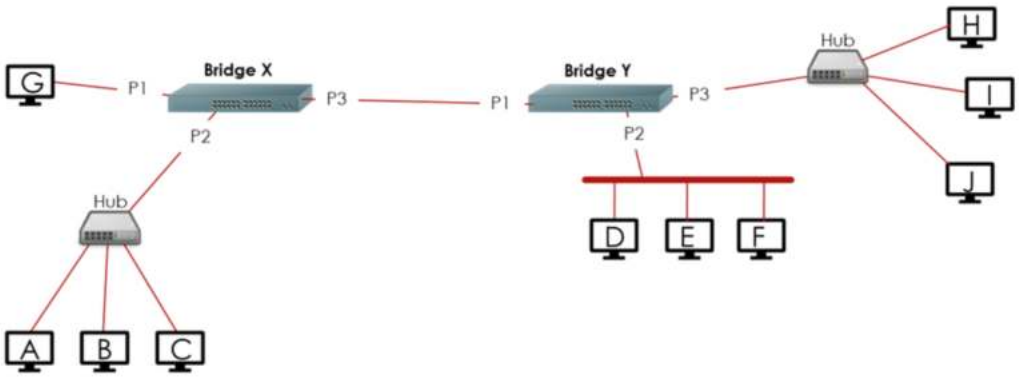
- I. A random time between 0 and 63 time unit
- II. A random time between 0 and 127 time unit
- (●) III. A random time between 0 and 255 time unit
- IV. A random time between 0 and 511 time unit

QUESTION 20 — 1 points — Saved

A 10 Mbps half-duplex link between two stations is established. If the distance between the two stations is 20 Km and if the stations agreed to use CSMA/CD to access the link, what is the minimum frame size that a sender must send to detect any potential collision? (Assume that the speed of light is 2.8*10^8 m/s. Note: 1 Km = 10^3 m, 1 Mbps = 2^20 bit/s)

- I. 1130 bits
- (●) II. 1498 bits
- III. 2275 bits
- IV. 4688 bits

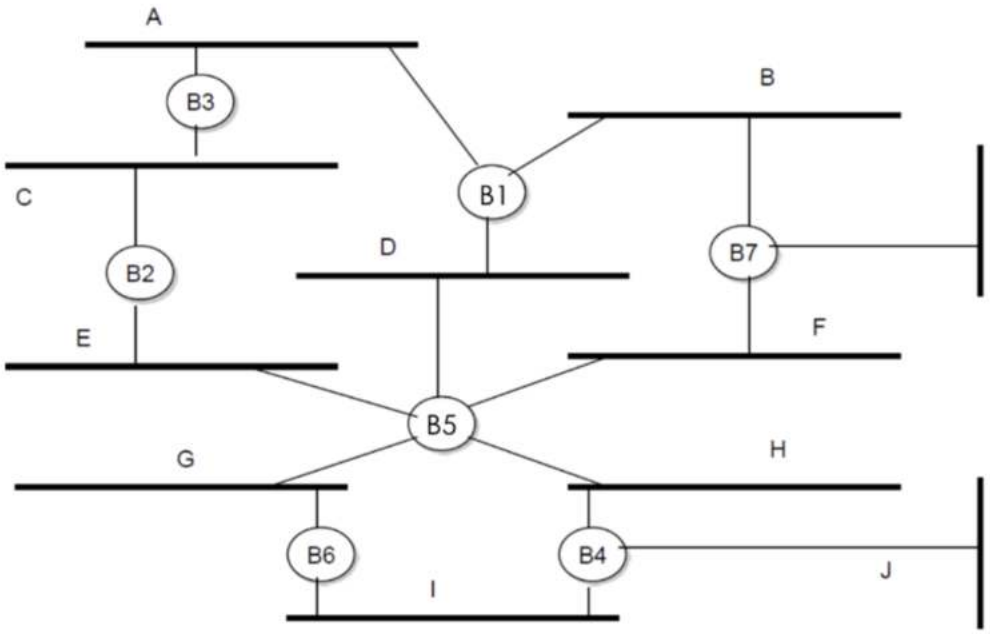
QUESTION 21 — 1 points — Save Answer



If Bridge X and Bridge Y are used to link the four LAN segments as shown in the picture. If both bridges initially have no entries in their forwarding table, what would the forwarding table of **Bridge X** look like after the following frames are sent in sequence:
<Src=G, Dest=C> then <Src=D, Dest=C> then <Src=A, Dest=G>

- I. Bridge X forwarding table: <Host G, Port 1>
- II. Bridge X forwarding table: <Host G, Port 1>, <Host D, Port 3>
- (●) III. Bridge X forwarding table: <Host G, Port 1>, <Host D, Port 3>, <Host A, Port 2>
- IV. Bridge X forwarding table: <Host G, Port 1>, <Host D, Port 3>, <Host A, Port 2>, <Host C, Port 2>

QUESTION 22 — 1 points — Saved



In the figure above, which bridge is considered the designated bridge for LAN E after the spanning tree protocol finishes building the tree?

- I. B1
- II. B5
- III. B3
- IV. B2

QUESTION 23 — 1 points — Saved

Let's assume that a configuration BPDU has the following information: [Root ID, cost to reach the root, Bridge ID]. If a bridge B3 has the configuration BPDU [B2,5,B3]. How will B3 change this BPDU after receiving B2's BPDU that has the following information [B1,7,B2]

- I. B3 will keep his BPDU as [B2,5,B3]
- II. B3 will update its BPDU to [B1,7,B3]
- III. B3 will update its BPDU to [B1,8,B3]
- IV. B3 will update its BPDU to [B1,8,B2]

QUESTION 24 — 1 points — Save Answer

What is the checksum of an IP header that has the sum of "C4BD" in hexadecimal when adding every 16-bit word of it together?

- I. 3B42 hexadecimal
- II. 3B43 hexadecimal
- III. DB4C hexadecimal
- IV. 24B3 hexadecimal

QUESTION 25 — 1 points — Save Answer

How many bits belong to the network ID part of the following CIDR address "170.50.4.0/22"?

- I. 170
- II. 4
- III. 10
- IV. 22

QUESTION 26 — 1 points — Save Answer

What is the CIDR address that represents the addresses between 198.125.12.0 and 198.125.15.255?

- I. 198.125.12.0/22

II. 198.125.12.0/24

III. 198.125.15.0/24

IV. 198.125.15.0/22

QUESTION 27

1 points Save Answer

If an organization is given the CIDR address 195.50.64.0/18, How many subnets can the organization have if each subnet needs 1022 valid host addresses? (Hint: this depends on the number of bits that will be used to distinguish the subnets)

I. 2^2 = 4 subnets

II. 2^4 = 16 subnets

III. 2^6 = 64 subnets

IV. 2^8 = 256 subnets

QUESTION 28

1 points Save Answer

Which CIDR address from the following has the longest prefix matching with the address 215.200.50.96? Note: 96 in decimal = 01100000 in binary

I. 215.200.50.48/28

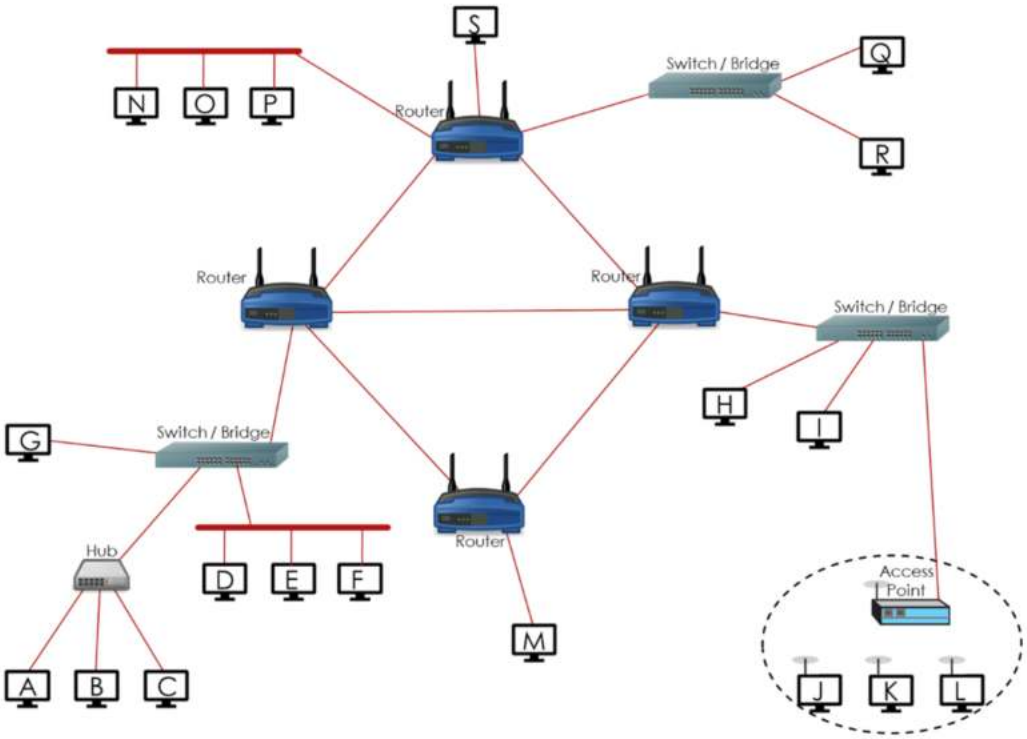
II. 215.200.50.128/25

III. 215.200.50.32/27

IV. 215.200.50.64/26

QUESTION 29

1 points Save Answer



If Host Q send an ARP query packet, which of the following hosts will see the packet?

I. P

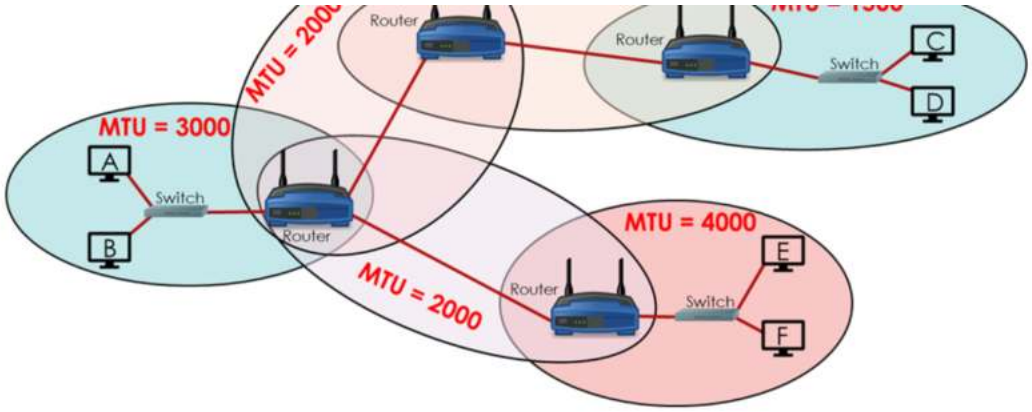
II. R

III. S

IV. All of the hosts above

QUESTION 30

1 points Save Answer



In the figure above, if Host A used the MTU discovery protocol to find the minimum MTU of the path to Host C, How many times an ICMP message would have been sent to Host A from the routers before Host A's message reached Host C.

- I. 0
- II. 1
- III. 2
- IV. 3

QUESTION 31

0 points Save Answer

(Optional) Write your justification for the choices you have made

For the toolbar, press ALT+F10 (PC) or ALT+FN+F10 (Mac).

Paragraph | Arial | 14px

P

0 WORDS POWERED BY TINY

QUESTION 32

0 points Save Answer

You can upload your justification file here

Attach File

Browse Local Files | Browse Content Collection

Click Save and Submit to save and submit. Click Save All Answers to save all answers.

Save All Answers | Save and Submit