The functionality of the 2-4 decoder is given below

Inputs			Outputs			
A2	A1	A0	D0	D1	D2	D3
1	0	0	1	0	0	0
1	1	0	0	1	0	0
1	0	1	0	0	1	0
1	1	1	0	0	0	1
0	X	X	0	0	0	0

a. What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?

b. What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?

c. If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

a) A2 = 1, A1 = 1, A0 = 0

b) A2 = 0, A1 = 0, A0 = 0

c) Removing NOT Gate

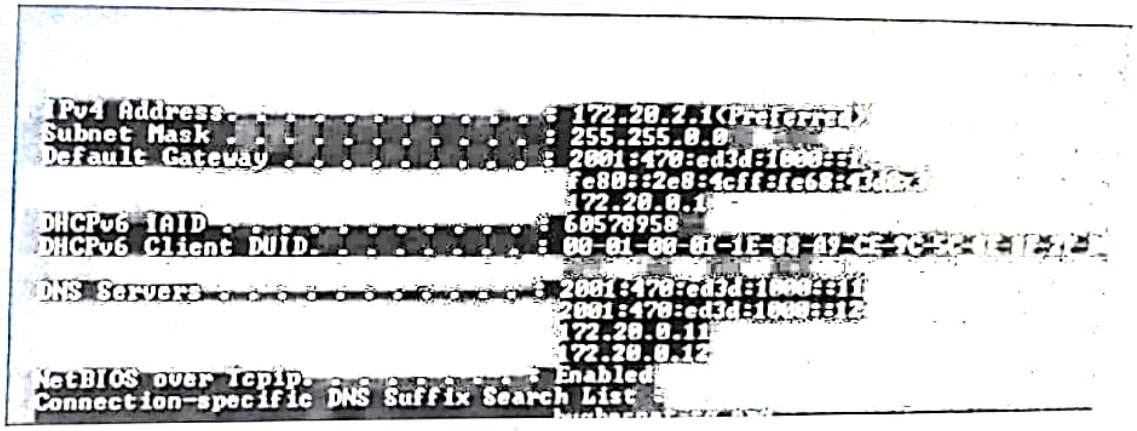
Question 22

Not yet answered

Marked out of 2.00

Flag question

John typed 'ipconfig' command while being connected to his home WiFi and obtained the follow
computers(devices) can be connected to John's home network?



Answer:

Question 23

Not yet answered

Marked out of

address bus is the uni-directional bus in system bus.

One of your friends has come to you with following K-Map that he developed after carefully going through a Truth Table to represent input-output relationships of a real world problem with the aim of designing a combinational circuit.

AB \ CD	0	1	0	0
	0	0	0	0
	1	1	0	0
	1	0	0	0

A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use *m1* to represent *minterm 1*)

B. After carefully studying the problem again, you found out that it is not a problem even *minterms 4, 5,* and *9* being 0 or 1. By taking your new findings into consideration, simplify above K-map. Write the simplified Boolean equation in SoP form. (*Write $A\bar{B}C\bar{D}$ as AB'CD' in your answer. Don't keep spaces between letters*)

C. How many AND gates and OR gates are needed to implement this circuit.

i) AND:

ii) OR:

Allocating and deallocating memory is a service coming under _____.

_____ is an electronic circuit having a combinational circuit with a memory.

Suppose that there are some instructions that are loaded in memory as follows.

address	instruction
350	1942
351	2945
352	5947
353	1950
354	3951
355	4952

Assuming that instructions are executed sequentially and the current PC value is set as 351, write th content of the Program Counter (PC) and Instruction Register (IR) values at each step of execution.

BIOS program is typically stored in EEPROM, generally known as

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[ ] provides commands to the processor.

22
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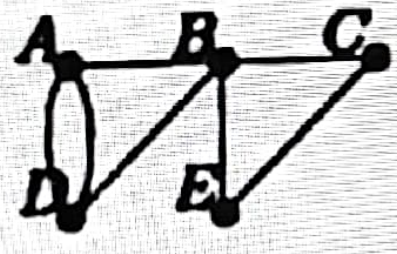
out of
question

[ ] shows required input combination for a given change of state.

on 23

For the given IP address find the following.



C

https://netexam.slit.lk/mod/quiz/attempt.php?attempt=337466&cmid=4958&page=1

Dashboard | Examinations | Lockdown Browser | Practice Test

Question 23
Not yet answered
Marked out of 2.00
Flag question

1 st usable IP address

Answer:

Question 24
Not yet answered
Marked out of 3.00
Flag question

For the given IP address find the following.

IP address: - 172.18.10.1

- Network address: 172 . 18 . 0 . 0
- Subnet mask: 255 . 255 . 0 . 0
- Broadcast address: 172 . 18 . 255 . 255
- Last usable IP address: 172 . 18 . 255 . 254

Question 25
Not yet answered
Marked out of 1.00
Flag question

BIOS program is typically stored in EEPROM, generally known as .

Question 26
Not yet answered

An operating system is driven.

Type here to search

Flag question

Question 26

Not yet answered

Marked out of 3.00

Flag question

For the given IP address find the following.

IP address: - 192.168.100.32

- Network address: 192 . 168 . 100 . 32
- Subnet mask: 255 . 255 . 255 . 0
- Broadcast address: 192 . 168 . 100 . 255
- 1st usable IP address: 192 . 168 . 100 . 1
- Last usable IP address: 192 . 168 . 100 . 254
- Number Hosts that can be connected to this network: 254

Question 21

Not yet answered

Marked out of 1.00

Flag question

_____ is loaded to main memory at the end of Bootstrapping process.

Question 22

Not yet answered

Marked out of 2.00

Flag question

1 st usable IP address

Answer:

Question 23

Not yet answered

Marked out of 1.00

_____ are the building blocks of digital circuits.

Question 21

Not yet answered

Marked out of 1.00

Flag question

_____ is an electronic circuit having a combinational circuit with a memory.

Question 22

Not yet answered

Marked out of 1.00

Flag question

_____ provides a unique number for every character.

Question 23

Not yet answered

Marked out of

Complete the missing parts of the binary form of following IPv4 address:

IPv4 Address: 176.129.11.139

estion 25
yet answered
ked out of
)
Flag question

Complete the missing parts of the binary form of following IPv4 address:

IPv4 Address: 198.168.10.1

- IPv4 Address in Binary: 11000110 . 10101000 . 00001010 . 00000001
- How Many Hosts Can be Connected this Network: 254

stion 26
yet answered
ked out of
lag question

Address of the next instruction of the program is stored in [ ] .

Next page

AB				
	0	0	0	0
	1	0	0	1
	1	0	1	0
	0	0	0	0

A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use *m1* to represent *minterm 1*)

B. After carefully studying the problem again, you found out that it is not a problem even *minterms 5, 13,* and *14* being 0 or 1. By taking your new findings into consideration, simplify above K-map. Write the simplified Boolean equation in SoP form. (*Write $A\bar{B}C\bar{D}$ as AB'CD' in your answer. Don't keep spaces between letters*)

C. How many AND gates and OR gates are needed to implement this circuit.

i) AND:

ii) OR:

An operating system is [ ] driven.

Complete the missing parts of the binary form of following IPv4 address:

IPv4 Address: 198.168.10.1

- IPv4 Address in Binary: 11000110 . 10101000 . 00001010 . 00000001
- How Many Hosts Can be Connected this Network:

Question 3

Not yet answered

Marked out of 0.50

Flag question

Match the correct Security Term to given Courseweb scenarios.

A log file keeps a record on what time a student submitted a file to Courseweb. — Accounting

Using a username and password to login to Courseweb — Authorization

Lecturers are allowed to delete files in Courseweb but Students Can only view the file. — Authentication

Question 4

Not yet answered

Marked out of 0.50

Flag question

Match the description with the appropriate ISO-OSI Layer

Provide reliable process to process message delivery — Transport Layer

Organizes bits into frames which helps hop-to-hop delivery — Choose...

Translate, Encrypt & Compress Data — Choose...

Allows users to access network resources — Choose...

Question 5

What is the correct decimal representation of the following IPv4 address?

ESSAY QU

28

ESSAY QU

29

FEEDBACK

30

Which of the following is not a benefit of the layered networking model?

Select one:

- a. Create a competition between vendors
- b. Provides a common language
- c. Changes in one layer do not affect other layers
- d. Assists in protocol design
- e. Allows one organization to control the protocol design

Match the correct Security Term to given Courseweb scenarios.

Using a username and password to login to Courseweb	Authentication
Lecturers are allowed to delete files in Courseweb but Students Can only view the file.	Authorization
A log file keeps a record on what time a student submitted a file to Courseweb.	Accounting

Not yet answered

Marked out of 0.50

Flag question

Select one:

- Television distribution
- Computer communication
- None of the mentioned is true
- Satellite communication
- Microwave communication

Question 7

Not yet answered

Select the correct statements about network characteristics. (Select two)

Marked out of 0.50

Flag question

Select one:

- 10 Gigabit Ethernet
- Token ring
- Virtual Private Network
- Ethernet
- Fast Ethernet

Question 12

Not yet answered

Marked out of 0.50

Flag question

Select the correct elements/components that make up a network.

Select one:

- Service, Medium, Packet, Rules.
- Service, Medium, Packet, Protocols.
- Device, Wire, Message, Rules.
- Device, Medium, Message, Rules.
- Device, Medium, Message, Protocols.

Question 18

Not yet answered

Marked out of 0.50

Flag question

What are the correct statements about "MAC address table"? *(select two)*

Select one or more:

- [ ] MAC address table is a collection of MAC addresses with the respective connected ports
- [x] MAC address table is created for each computer
- [ ] MAC address table is used by routers
- [x] MAC address table is used by switches
- [ ] None of the given answers are true

For the given IP address find the following.

IP address: - 172.18.10.1

- Network address: 172 . 18 . 10 . 0
- Subnet mask: 255 . 255 . 255 . 252
- Broadcast address: 172 . 18 . 10 . 3
- Last usable IP address: 172 . 18 . 10 . 255

For the given IP address find the following.

IP address: - 193.169.168.2

- Network address: 193 . 169 . 168 . 2
- Subnet mask: 255 . 255 . 255 . 0
- Broadcast address: 193 . 169 . 168 . 2
- 1st usable IP address: 193 . 169 . 168 . 2
- Last usable IP address: 193 . 169 . 168 . 254
- IP Address Class: c (Only type the Letter)

Complete the missing parts of the binary form of following IPv4 address:

IPv4 Address: 198.168.10.1

- IPv4 Address in Binary: 011000110 . 010101000 . 00001010 . 00000001
- How Many Hosts Can be Connected this Network:

transfer data/instruction to and from CPU.

Suppose that there are some instructions (16 bits) are loaded in memory as follows. The memory addresses are given in hexadecimal values and the current PC value is set as 351.

address	instruction
350	1942
351	2945
352	5947
353	1950
354	3951

Most significant four bits indicate the opcode and other bits represent the operand reference. What are the memory addresses of above instructions pointing at to fetch instruction/data ()?

address	instruction
350	1942
351	2945
352	5947
353	1950
354	3951
355	4952

Assuming that instructions are executed sequentially a
content of the Program Counter (PC) and Instruction R

PC-351 IR-1942

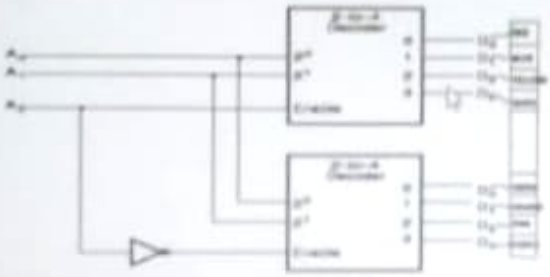
PC-352 IR-2945

PC-353 IR-5947

PC-354 IR-1950

PC-355 IR-3951

Following is the block diagram of a combinational circuit which is made up of two 2-4 Decoders. Assume that each of the output lines of a Decoder is connected to a colored LED bulb as given in the diagram.



The functionality of the 2-4 decoder is given below

Inputs			Outputs			
A2	A1	A0	D0	D1	D2	D3
1	0	0	1	0	0	0
1	1	0	0	1	0	0
1	0	1	0	0	1	0
1	1	1	0	0	0	1
0	X	X	0	0	0	0

a. What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?

b. What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?

c. If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

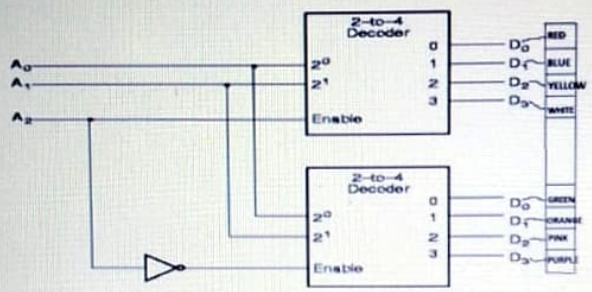
Question 27

Not yet answered

Marked out of 10.00

Flag question

Following is the block diagram of a Combinational circuit which is made up of two 2-4 Decoders. Assume that each of the output lines of a Decoder is connected to a colored LED bulb as given in the diagram.



The functionality of the 2-4 decoder is given below.

Inputs			Outputs			
A2	A1	A0	D0	D1	D2	D3
1	0	0	1	0	0	0
1	1	0	0	1	0	0
1	0	1	0	0	1	0
1	1	1	0	0	0	1
0	X	X	0	0	0	0

a. What are the input values that must be provided for A2, A1, A0 respectively, to have the ORANGE light ON?

b. What are the input values that must be provided for A2, A1, A0 respectively, to have the RED light ON?

c. If you need to have both the BLUE and ORANGE lights ON, what is the modification you need to do to the above circuit?

What is the subnet mask of the following IP address?

IP address: - 192.168.105.4

Write your answer in dotted decimal format (e.g. 192.168.10.1)

Answer: 255.255.255.0

Complete the missing parts of the binary form of following IPv4 address:

IPv4 Address: 173.18.10.253

- IPv4 Address in Binary: 10101101 . 00010010 . 00001010 . 11111101
- IP Address Class: B

Multiplexer is a combinational circuit that can be used for data routing and parallel to serial conversion.

shows required input combination for a given change of state.

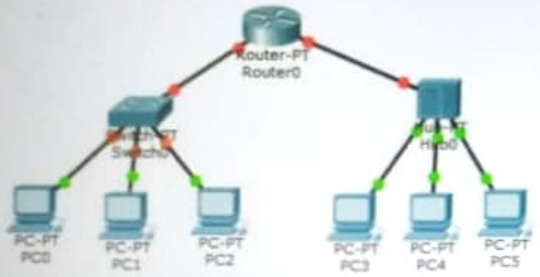
Question 15

Not yet answered

Marked out of 0.50

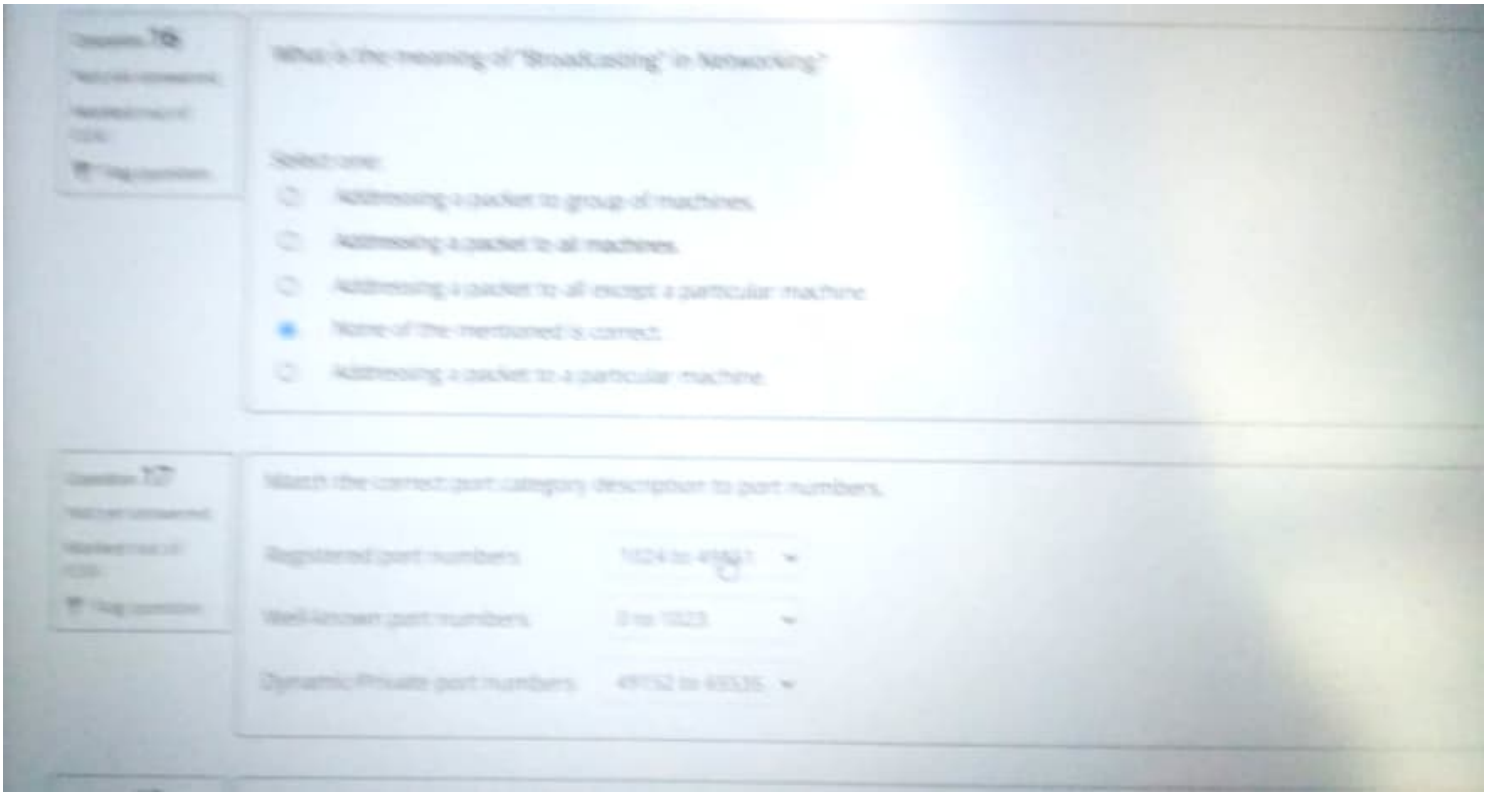
Flag question

Which of the following statements describe the network shown in the graphic? (Select two)



Select one or more:

- There are total number of seven collision domains in the network.
- There are total number of four collision domains in the network.
- There are total number of two broadcast domains in the network.
- There are total number of five collision domains in the network.
- There are total number of four broadcast domains in the network.
- There are total number of six broadcast domains in the network.



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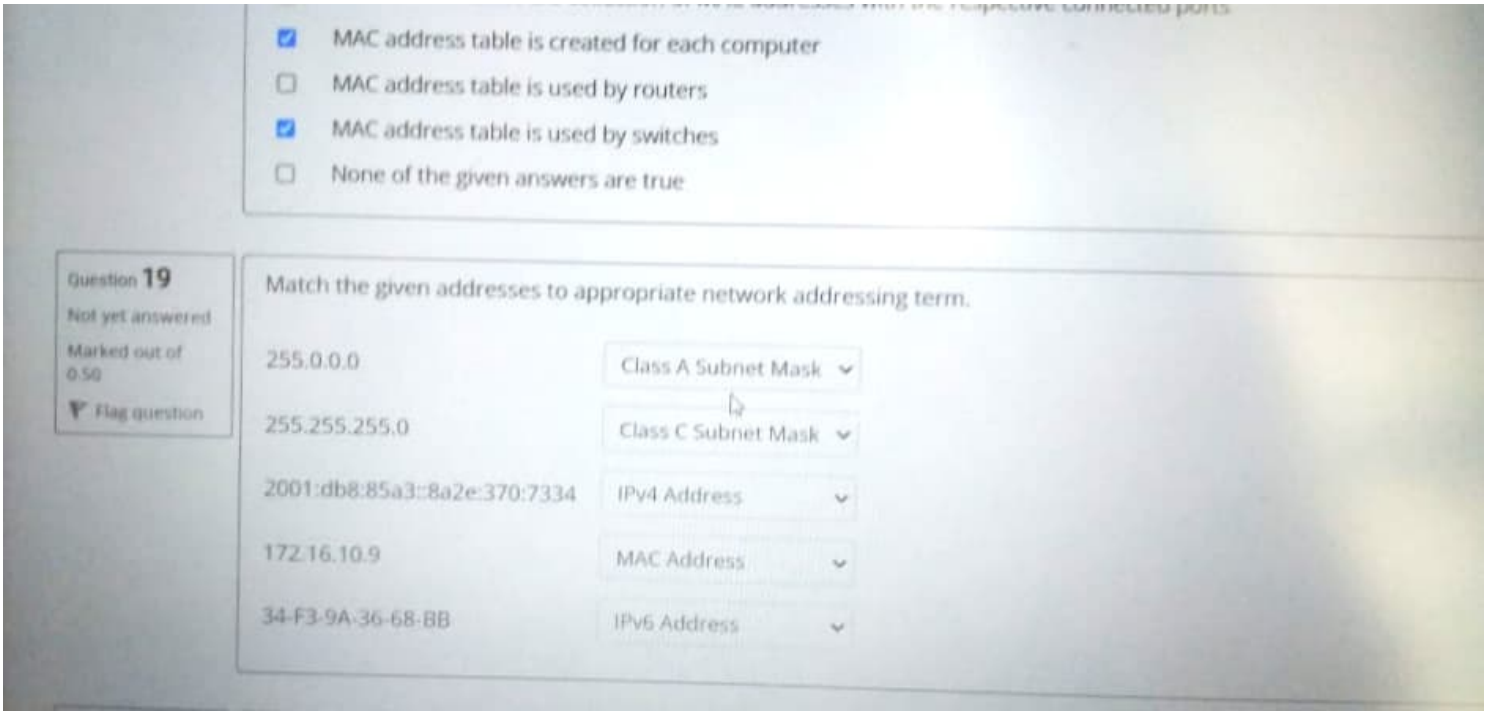


ADSL is the abbreviation of,

Select one:

- None of the mentioned is true.
- Asymmetric Digital Subscriber Line
- Asymmetric Dual System Line
- Asymmetric Dual Subscriber Line
- Asymmetric Digital System Line

What is **not** an advantage of a computer network?

Select one:

- User Communication
- Social Engineering
- Interaction among cooperative application programs
- Remote Information Access

What is "Attenuation" in a data transmission medium?

Select one:

- None of the mentioned is true.
- Loss of signal strength.
- An unwanted signal component.
- One signal getting mixed up with another signal.
- Reflecting of a signal at an interface.

What is the correct statement about a Broadcast Domain?

Select one:

- A collection of two or more computers in which, when one sender sends a message, it is received by one receiver in the same domain.
- A collection of two or more computers in which, when one sender sends a message, it is received by a group of computers in the same domain.
- A collection of two or more computers in which, when one sender sends a message, it is received by all the others in the same domain.
- A collection of two or more computers in which, when one sender sends a message, it is received by all the others in a different domains.
- None of the mentioned is true.

What is a main difference between a Switch and a Bridge?

Select one:

- There is no difference.
- Bridge is a dumb device while switch is an intelligent device.
- Switch is large and a bridge is small.
- Bridge is used to segment a LAN while Switch is used to interconnect different LANs.
- A bridge is used to connect LANs whereas a switch is used to create a LAN

What are the correct statements about "MAC address table"? (select two)

Select one or more:

- [ ] MAC address table is used by switches
- [ ] None of the given answers are true
- [x] MAC address table is used by routers
- [ ] MAC address table is a collection of MAC addresses with the respective connected ports
- [x] MAC address table is created for each computer

Select the statement which is not true.

Select one:

- The internet architecture standards are defined by Internet Architecture Board.
- The internet is a public network.
- The internet is defined as a global mesh of interconnected networks.
- The internet is owned by Internet Society (ISOC).
- The protocols related to the Internet is defined by IETF and IRTF

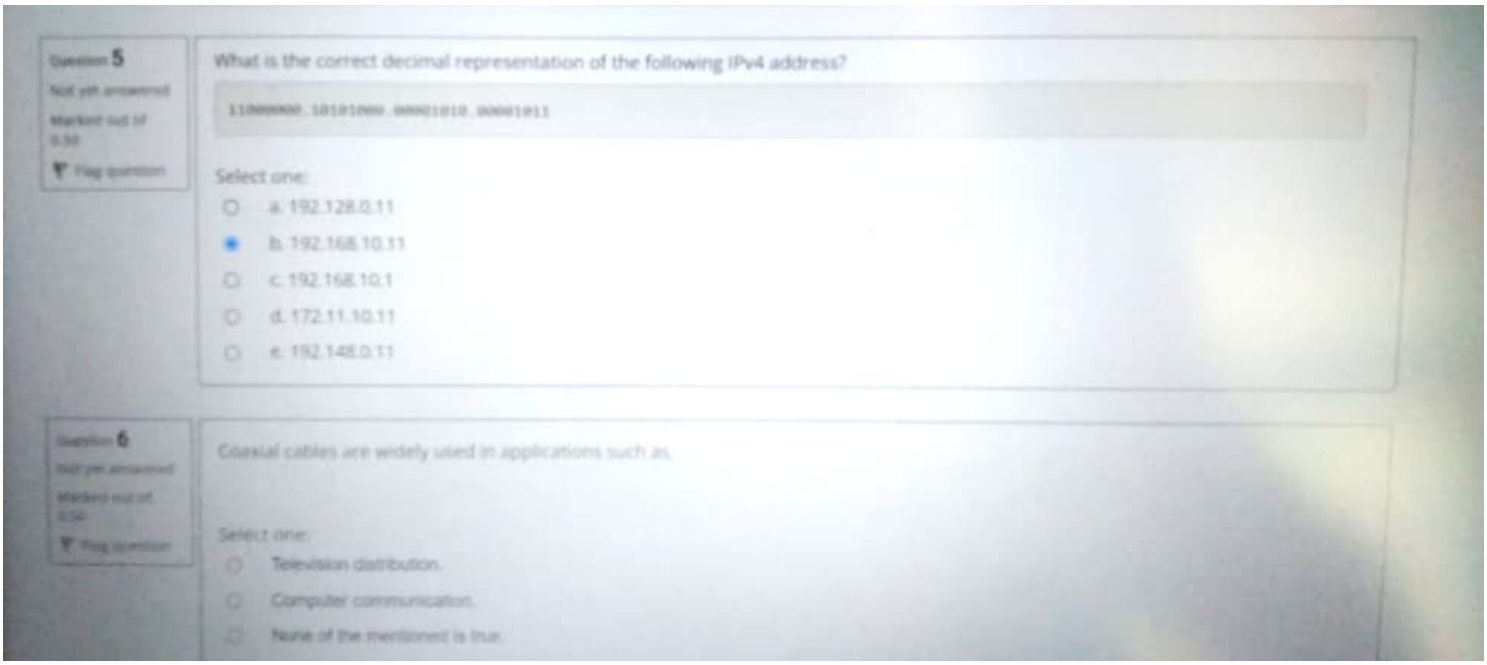
What is a main difference between a Switch and a Bridge?

Select one:

Which of the following is not a responsibility of the Data Link layer?

Select one:

- a. Access control
- b. Routing
- c. Framing – Ethernet frame
- d. Physical addressing (MAC address)
- e. Flow control



Question 5

Not yet answered

Marked out of 0.50

Flag question

What is the correct decimal representation of the following IPv4 address?

11000000.10101000.00001010.00001011

Select one:

- a. 192.128.0.11
- b. 192.168.10.11
- c. 192.168.10.1
- d. 172.11.10.11
- e. 192.148.0.11

Question 6

Not yet answered

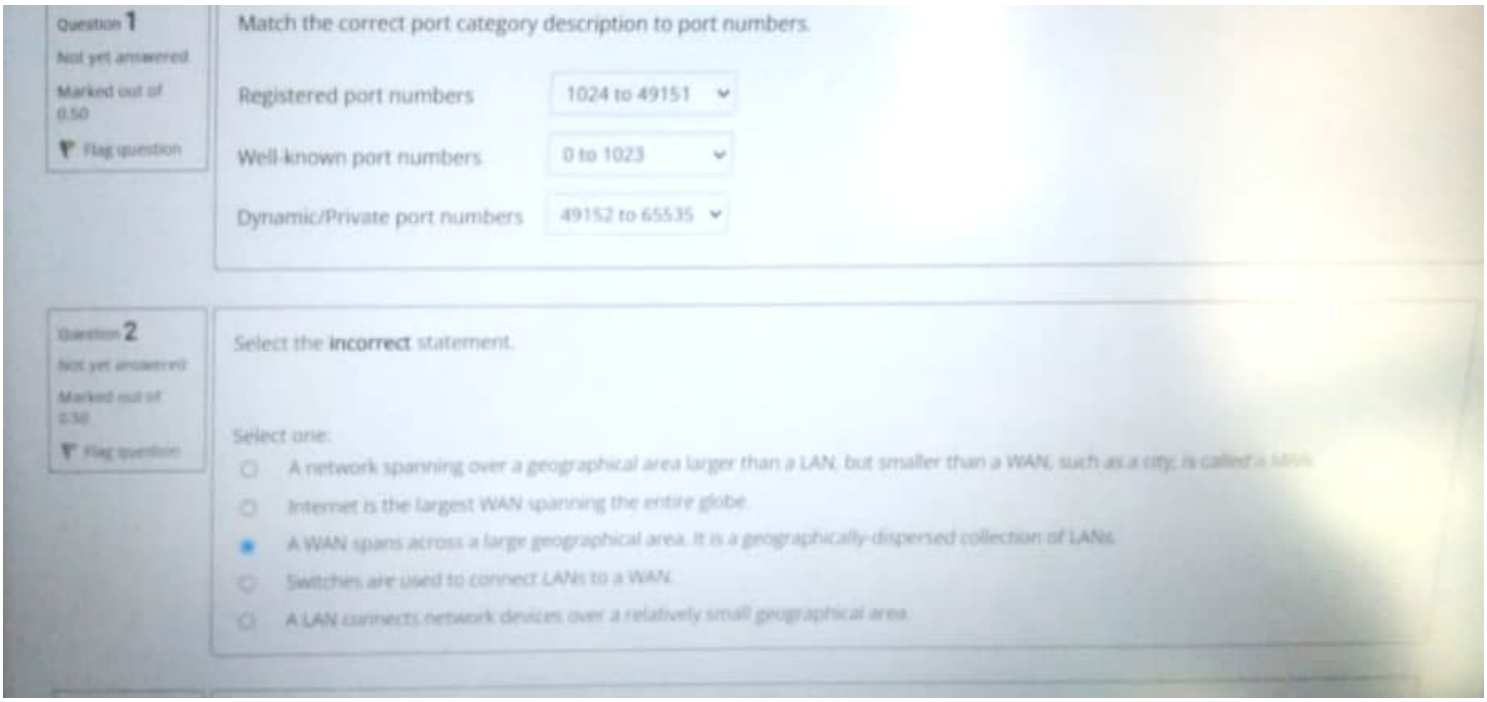
Marked out of 0.50

Flag question

Coaxial cables are widely used in applications such as,

Select one:

- Television distribution.
- Computer communication.
- None of the mentioned is true.



Question 1

Not yet answered

Marked out of 0.50

Flag question

Match the correct port category description to port numbers.

Registered port numbers — 1024 to 49151

Well-known port numbers — 0 to 1023

Dynamic/Private port numbers — 49152 to 65535

Question 2

Not yet answered

Marked out of 0.50

Flag question

Select the **incorrect** statement.

Select one:

- A network spanning over a geographical area larger than a LAN, but smaller than a WAN, such as a city, is called a MAN.
- Internet is the largest WAN spanning the entire globe.
- A WAN spans across a large geographical area. It is a geographically-dispersed collection of LANs.
- Switches are used to connect LANs to a WAN.
- A LAN connects network devices over a relatively small geographical area.

Suppose that there are some instructions that are loaded in memory as follows.

address	instruction
350	1942
351	2945
352	5947
353	1950
354	3951
355	4952

Assuming that instructions are executed sequentially and the current PC value is set as 351, write the content of the Program Counter (PC) and Instruction Register (IR) values at each step of execution.

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netexam.sliit.lk/mod/quiz/attempt.php?attempt=336230&cmid=4958&page=3

Examinations | Lockdown Browser | Practice Test

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AB \ CD	0	0	0	0
	1	0	0	1
	1	0	1	0
	0	0	0	0

A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use *m1* to represent *minterm 1*)

B. After carefully studying the problem again, you found out that it is not a problem even *minterms 5, 13,* and *14* being 0 or 1. By taking your new findings into consideration, simplify above K-map. Write the simplified Boolean equation in SoP form. (*Write $A\bar{B}C\bar{D}$ as AB'CD' in your answer. Don't keep spaces between letters*)

C. How many AND gates and OR gates are needed to implement this circuit.

i) AND:

ii) OR:

A.)
B) ABCD+A'BD'+BC'D'
C) AND- 3
OR- 1

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One of your friends has come to you with following K-Map that he developed after carefully going through a Truth Table to represent input-output relationships of a real world problem with the aim of designing a combinational circuit.

AB \ CD	0	1	0	0
0	0	0	0	0
1	1	0	0	0
1	0	0	0	0

A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use *m1* to represent *minterm 1*)

B. After carefully studying the problem again, you found out that it is not a problem even *minterms 4, 5,* and *9* being 0 or 1. By taking your new findings into consideration, simplify above K-map. Write the simplified Boolean equation in SoP form. (*Write $A\bar{B}C\bar{D}$ as AB'CD' in your answer. Don't keep spaces between letters*)

C. How many AND gates and OR gates are needed to implement this circuit.

i) AND:

ii) OR: