

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 ()?

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.

The image shows a digital simulation interface for a computer system. At the top, there is a menu bar with options like 'File', 'Edit', 'View', 'Run', 'Help', and 'About'. Below the menu is a toolbar with various icons for file operations like Open, Save, Print, and Help. The main area consists of several windows and panels. On the left, there is a 'Memory' window showing memory addresses from 350 to 355 with their corresponding instruction values. To the right of the memory window is a 'Registers' panel containing the Program Counter (PC), Instruction Register (IR), Accumulator (A), and other registers. Below the memory and registers are two large windows labeled 'A' and 'B', which likely represent the ALU and memory respectively. At the bottom of the interface are several control buttons: 'Run', 'Step', 'Reset', 'Stop', and 'Break'. There are also buttons for 'Run', 'Step', 'Reset', and 'Stop' located on the right side of the interface.

Each device controller has a

to store data temporarily until they sent to CPU or Memory.

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.

		CD			
		1	0	0	0
AB		1	0	1	1
0	0	0	0	0	0
0	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 2, 3, and 5/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:

- 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 . 255



is comprised with a combinational circuit and memory elements.

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.

		CD			
		0	0	0	0
AB		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:

iii) OR:

How Many Hosts Can be Connected this Network: 254

FEEDBACK

30

Each device controller has a  to store data temporarily until they sent to CPU or Memory.

is the uni-directional bus in system bus.

A

[redacted] can be used to replace Boolean Algebraic method, when simplifying a Boolean expression.



Allocating and deallocating memory is a service coming under [redacted].

John typed 'ipconfig' command while being connected to his home WiFi and obtained the following result. How many IPv4

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

A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use  $m_1$  to represent minterm 1)

I

B. After carefully studying the problem again, you found out that it is not a problem even minterms 3, 11, and 13 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.

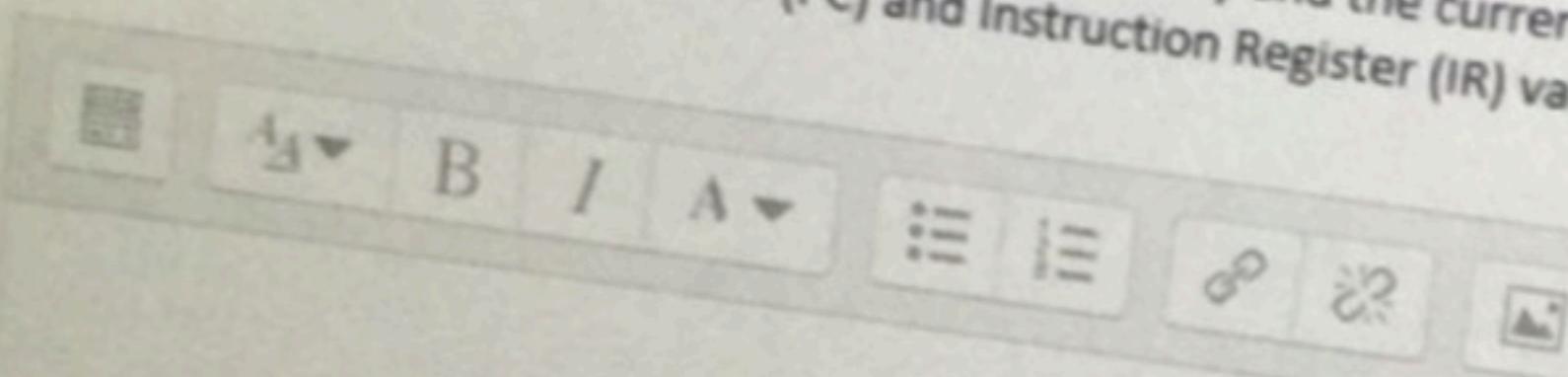
i) AND:

ii) OR:

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

address	instruction
350	1942
351	2945
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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.



RISC has instructions that can be executed within  I  cycle.

Question 27

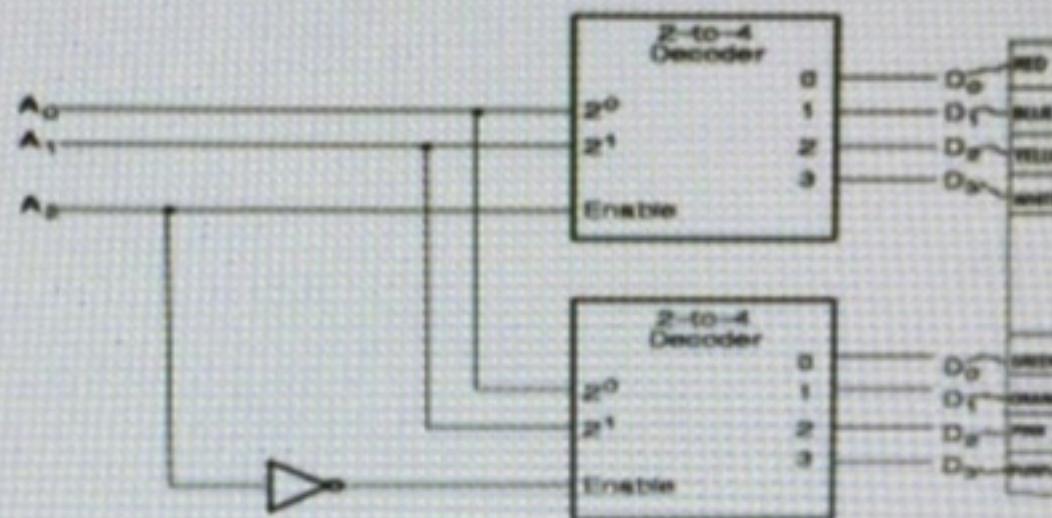
Not yet answered

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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

- What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?
- What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?
- If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

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		1	0	0	0
AB		1	0	1	1
		0	0	0	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  $m_1$  to represent minterm 1)

B. After carefully studying the problem again, you found out that it is not a problem even minterms 2, 3, and 5/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:

**Question 29**

Not yet answered

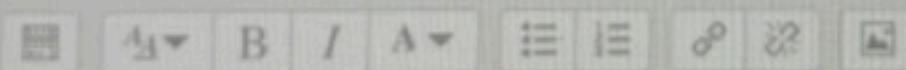
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Flag question

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
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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 ()?



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## Examinations

## Lockdown Browser

## Practice Test

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

- A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use  $m_1$  to represent minterm 1)
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- C. How many AND gates and OR gates are needed to implement this circuit.

i) AND:

ii) OR:

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

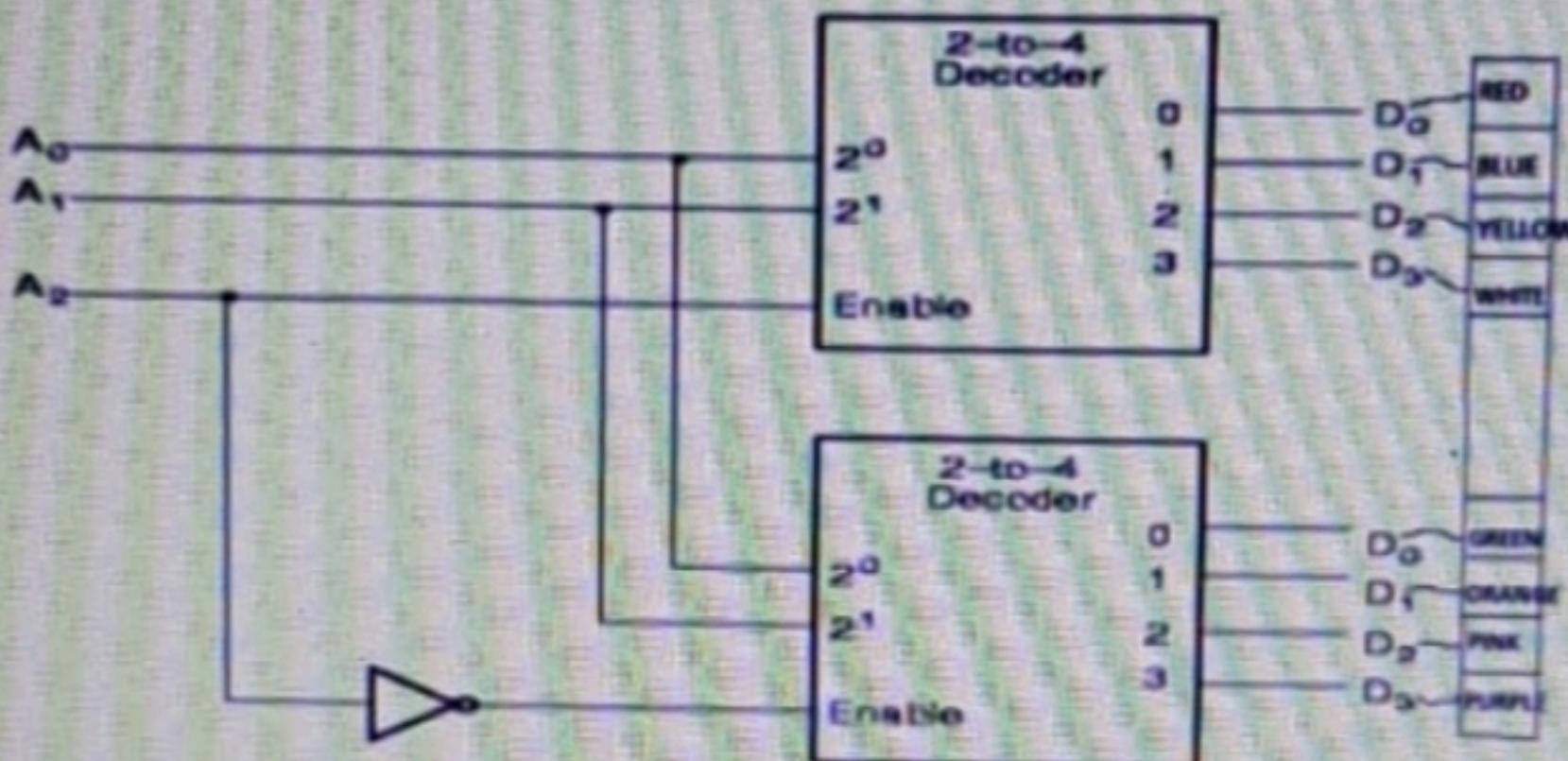
- a. What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?
- b. What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?
- c. If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

a. A2=1 A1=1 A0=0

b. A2=1 A1=0 A0=0

c. Remove NOT gate

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			
$A_2$	$A_1$	$A_0$	$D_0$	$D_1$	$D_2$	$D_3$
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

- What are the input values that must be provided for  $A_2$ ,  $A_1$ ,  $A_0$  respectively, to have the ORANGE light ON?
- What are the input values that must be provided for  $A_2$ ,  $A_1$ ,  $A_0$  respectively, to have the RED light ON?
- If you need to have both the BLUE and ORANGE lights ON, what is the modification you need to do to the above circuit?

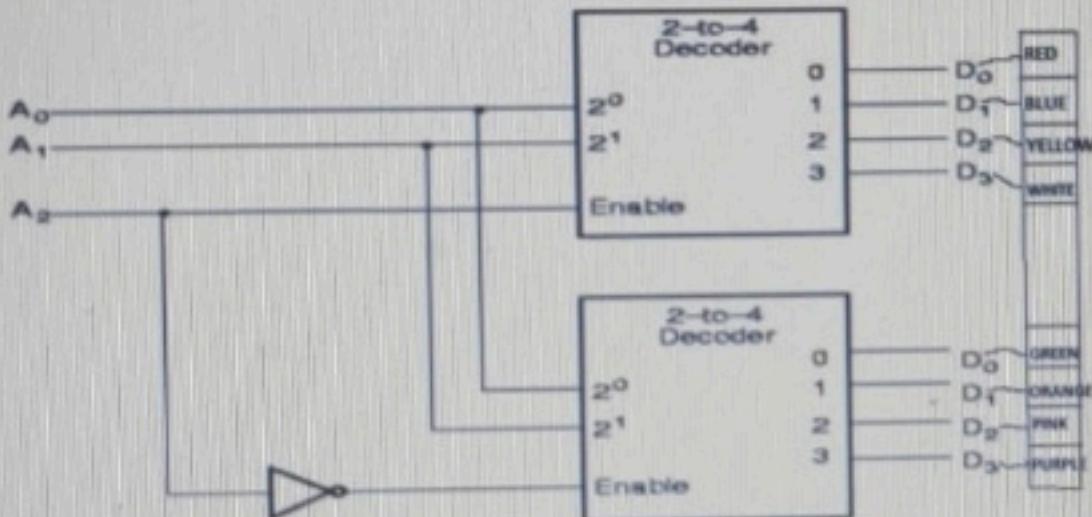
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Not yet answered

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Inputs			Outputs			
A <sub>2</sub>	A <sub>1</sub>	A <sub>0</sub>	D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>
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

Question 27

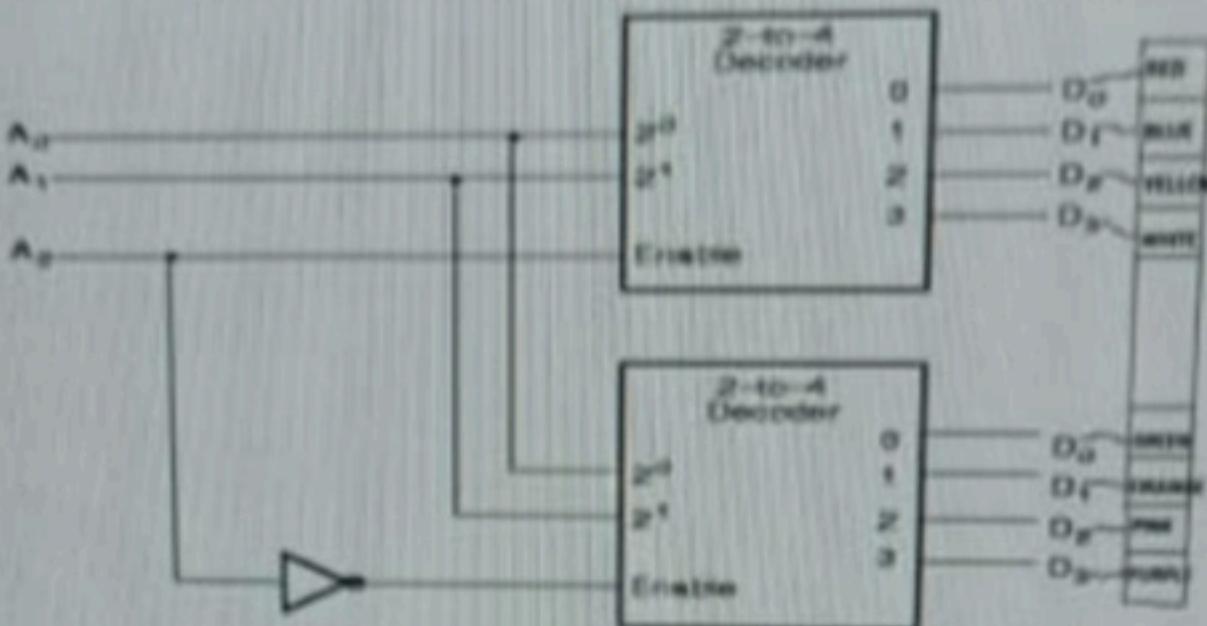
Not yet answered

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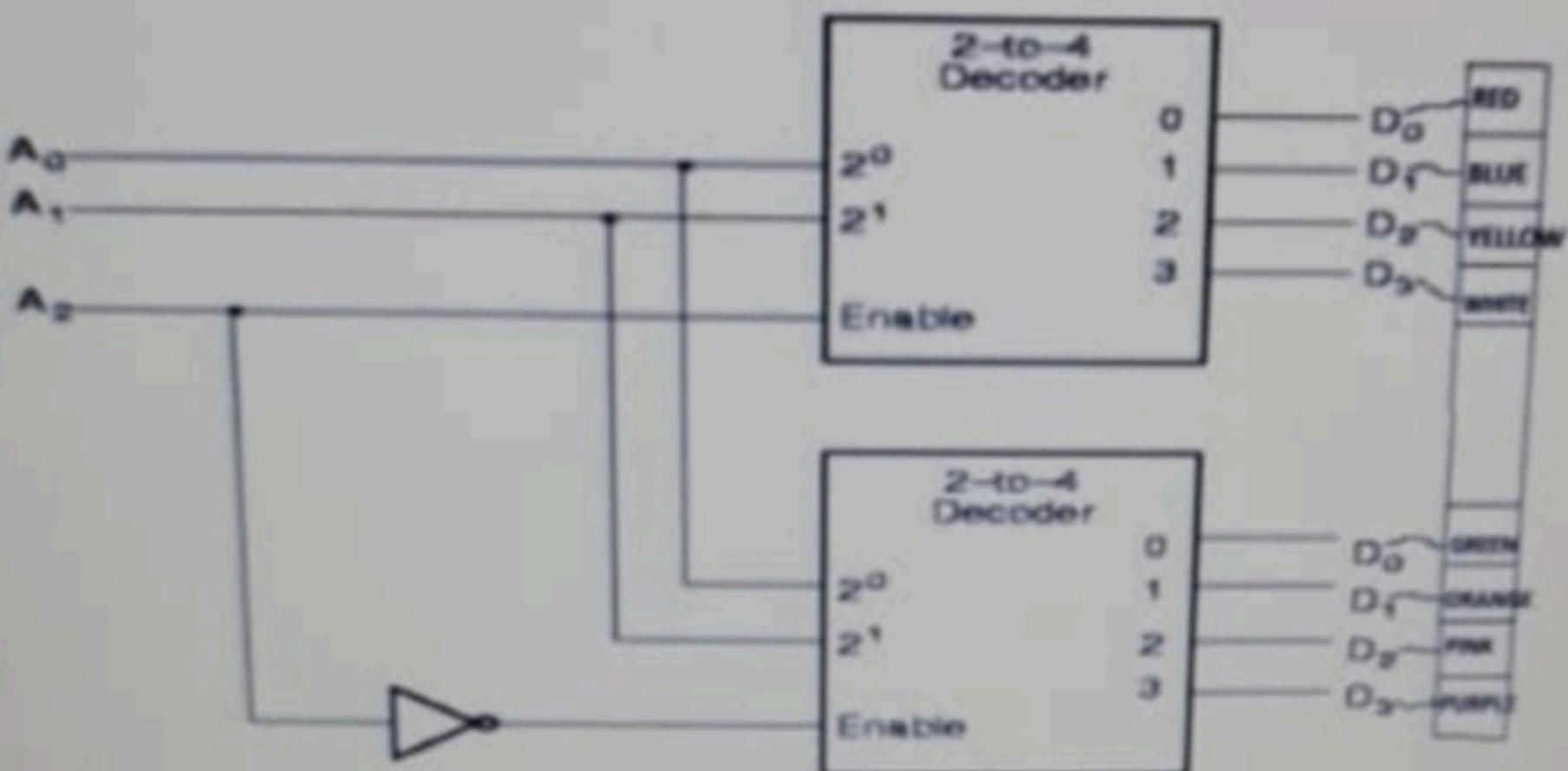


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Inputs			Outputs			
A <sub>2</sub>	A <sub>1</sub>	A <sub>0</sub>	D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>
1	0	0	1	0	0	0
1	1	0	0	1	0	0
1	0	1	0	0	1	0
1	1	1	0	0	0	1
0	X	X	0	0	0	0

- What are the input values that must be provided for A<sub>2</sub>, A<sub>1</sub>, A<sub>0</sub> respectively, to have the BLUE light ON?
- What are the input values that must be provided for A<sub>2</sub>, A<sub>1</sub>, A<sub>0</sub> respectively, to have the GREEN light ON?
- If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

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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?

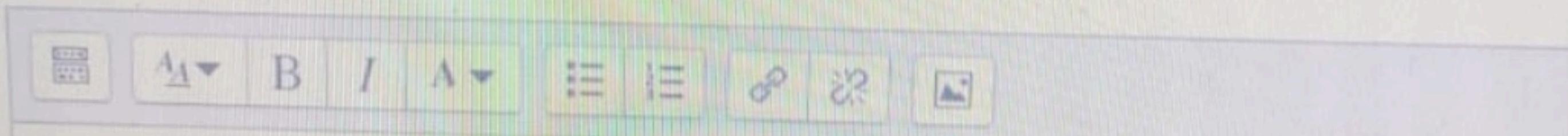
A semiconductor memory cell is fabricated with

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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 ()?



Each device controller has a  to store data temporarily until they sent to CPU or Memory.

is the uni-directional bus in system bus.

Match the given address to the correct address type.

FE80:CD00:0000:0CDE:1257:0000:211E:**729C**

Choose...

00:1B:44:11:3A:B7

Choose...

203.147.23.20

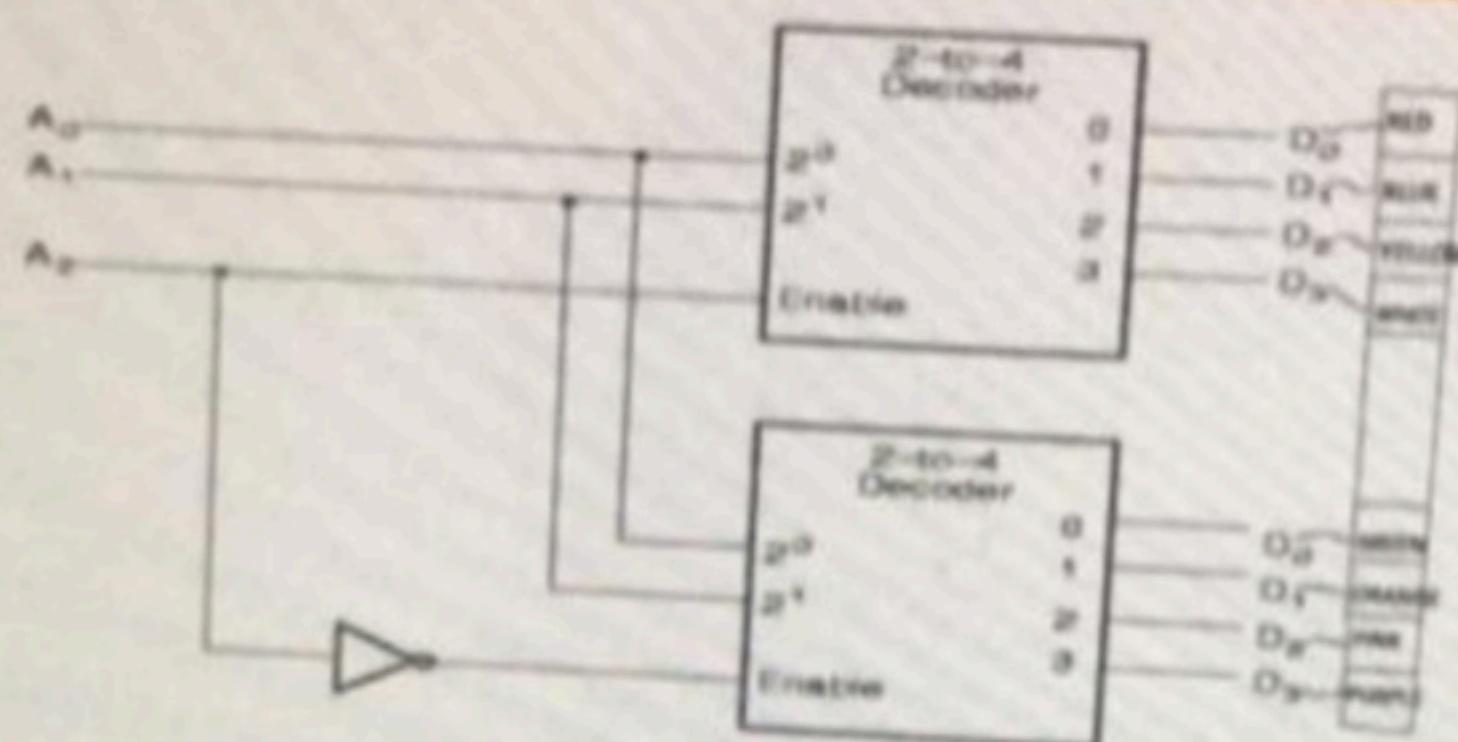
IPv6 Address

MAC Address

Application Address

Port Address

IPv4 Address



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

Inputs			Outputs			
$A_2$	$A_1$	$A_0$	$D_0$	$D_1$	$D_2$	$D_3$
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

- What are the input values that must be provided for  $A_2$ ,  $A_1$ ,  $A_0$  respectively, to have the BLUE light ON?
- What are the input values that must be provided for  $A_2$ ,  $A_1$ ,  $A_0$  respectively, to have the GREEN light ON?
- If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

John typed 'ipconfig' command while being connected to his home WiFi and obtained the following result. How many IPv4 computers(devices) can be connected to John's home network?

```
IPv4 Address . . . . . : 172.20.2.1<Preferred>
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 2001:470:ed3d:1000::1
                                         fe80::2e8:4cff:fe68:43d0%3
                                         172.20.0.1
DHCPv6 IAID . . . . . : 60578958
DHCPv6 Client DUID . . . . . : 00-01-00-01-1E-88-A9-CE-9C-5C-8E-8F-2F-B0
DNS Servers . . . . . : 2001:470:ed3d:1000::11
                         2001:470:ed3d:1000::12
                         172.20.0.11
                         172.20.0.12
NetBIOS over Tcpip. . . . . : Enabled
Connection-specific DNS Suffix Search List :
                                busheen.net.mn.ora
```

Answer:

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

Select one:

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

[redacted] is used to reduce file size and file transmission time.

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ag question

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address	instruction
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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 ()?



A▼

B

I

A▼



Insert or edit image

Question 21

Not yet answered

Marked out of  
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Flag question

John typed 'ipconfig' command while being connected to his home WiFi and obtained the following result. How many IPv4 computers/devices can be connected to John's home network?

```
Wireless LAN adapter Wi-Fi:  
  
Connection-specific DNS Suffix . :  
IPv6 Address . . . . . : 2402:4000:2080:76c8:74a5:2827:c1c0:4  
IPv6 Address . . . . . : 2402:4000:2182:5b3f:5095:effe:e4bc:5f63  
IPv6 Address . . . . . : 2402:4000:2182:5b3f:74a5:2827:c1c0:4  
Temporary IPv6 Address . . . . . : 2402:4000:2182:5b3f:a4e4:9e4c:8590:cb0  
Link-local IPv6 Address . . . . . : fe80::5095:effe:e4bc:5f63%4  
IPv4 Address . . . . . : 192.168.8.106  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . : fe80::76a5:28ff:fe27:c1c0%4  
192.168.8.1
```

Answer:

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

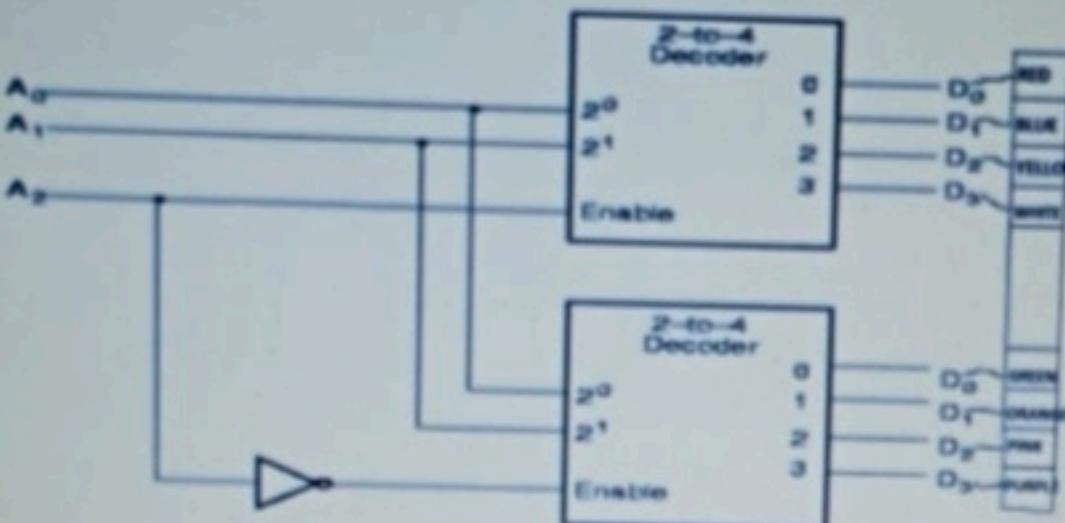
IPv4 Address: 175.16.10.135

- IPv4 Address in Binary:  .  ,  .
- IP Address Class:

For the given IP address find the following.

IP address: - 192.168.168.2

- Network address:  .  .  .
- Subnet mask:  .  .  .
- Broadcast address: 192 . 168 . 168 .
- 1<sup>st</sup> usable IP address: 192 . 168 . 168 .
- Last usable IP address: 192 . 168 . 168 .
- IP Address Class:  (Only type the Letter)



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

- What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?
- What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?
- If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

Match the description with the appropriate ISO-OSI Layer

Allows users to access network resources

Choose... ▾

Organizes bits into frames which helps hop-to-hop delivery

Choose... ⌂

Translate, Encrypt & Compress Data

Data Link Layer

Provide reliable process to process message delivery

Presentation Layer

Network Layer

Transport Layer

Application Layer

Unauthorized user is a network \_\_\_\_\_ threat.

Select one:

- availability
- reliability
- quality of service
- scalability
- security

Match the description with the appropriate ISO-OSI Layer

Provide reliable process to process message delivery

Transport Layer

Allows users to access network resources

Application Layer

Translate, Encrypt & Compress Data

Presentation Layer

Organizes bits into frames which helps hop-to-hop delivery

Data Link Layer

Which of the following is NOT a correct statement regarding Firewalls?

Select one:

- a. Packet Filtering is a method used in Firewalls

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

Select one:

- Bridge is a dumb device while switch is an intelligent device.
- There is no difference.
- 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
- Switch is large and a bridge is small.

Which of the following is NOT a correct statement regarding Firewalls?

# NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

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Wireless LAN adapter Wi-Fi:
Connection-specific DNS Suffix . . . .
IPv6 Address . . . . . : 2402:4000:2080:76c8:74a5:2827:c1c0:4
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IPv6 Address . . . . . : 2402:4000:2182:5b3f:74a5:2827:c1c0:4
Temporary IPv6 Address . . . . . : 2402:4000:2182:5b3f:a4e4:9e4c:8590:cb0
Link-local IPv6 Address . . . . . : fe80::5095:effe:e4bc:5f63%4
IPv4 Address . . . . . : 192.168.8.106
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : fe80::76a5:28ff:fe27:c1c0%4
192.168.8.1
```

Answer:

2 shows required input combination for a given change of state.

3 Cache works on the principle of

RISC has instructions that can be executed within  cycle.

Cache works on the principle of .

- c. Internet is a collection of interconnected networks
- d. Internet is governed by International Standardization Organization (ISO)

Match the correct threat type to the given scenario.

A Malware program attached to another program to execute a particular unwanted function on a workstation

Choose... ▾

A Denial of Service Attack (DoS) using ping command

Choose... ▾

Network Security Threat  
Physical Security Threat  
Application Security Threat

Lots of rain causing floods and damaging the data center

Select the statement which is not true.

Select one:

- The internet is a public network.
- The internet is defined as a global mesh of interconnected networks.

A multipoint connection is a connection established between more than two devices.

Multi-point connection is always build using a wireless media.

Match the description with the appropriate ISO-OSI Layer

Provide reliable process to process message delivery

Organizes bits into frames which helps hop-to-hop delivery

Translate, Encrypt & Compress Data

Allows users to access network resources

Choose...

Choose...

Application Layer

Network Layer

Presentation Layer

Transport Layer

Data Link Layer

Match the correct Security Term to given Courseweb scenarios.

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

Choose...

## What is the correct statement about a Collision Domain?

Select one:

- A collection of two or more computers in which, if more than one sender tries to send data simultaneously, the signals will collide in the transmission media and make all the sent information unusable.
- In a router, all ports are in a single collision domain
- A collection of two or more computers in which, if one sender tries to send data, the signal will collide in the transmission media and make the sent information unusable.
- A collection of two or more computers in which, one computer tries to send data after another computer, the signals will collide in the transmission media and make all the sent information unusable.
- None of the mentioned is true.

In the instruction ADD AX, 20H, the answer gets stored in |

John typed 'ipconfig' command while being connected to his home WiFi and obtained the following output. What is the broadcast address of his home network? (Write in dotted decimal format)

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . . . . .	:	
IPv6 Address . . . . .	:	2402:4000:2080:76c8:74
IPv6 Address . . . . .	:	2402:4000:2182:5b3f:50
IPv6 Address . . . . .	:	2402:4000:2182:5b3f:74
Temporary IPv6 Address . . . . .	:	2402:4000:2182:5b3f:a4e
Link-local IPv6 Address . . . . .	:	fe80::5095:effe:e4bc:5f
IPv4 Address . . . . .	:	192.168.8.106
Subnet Mask . . . . .	:	255.255.255.0
Default Gateway . . . . .	:	fe80::76a5:28ff:fe27:c1c
		192.168.8.1

Answer:

Select the correct statement about hubs.

Select one:

- Hub functions are similar to switch.
- Hub maintains a MAC table for data forwarding
- None of the given statements are true.
- Hub always broadcast messages.
- Hub always unicast messages.

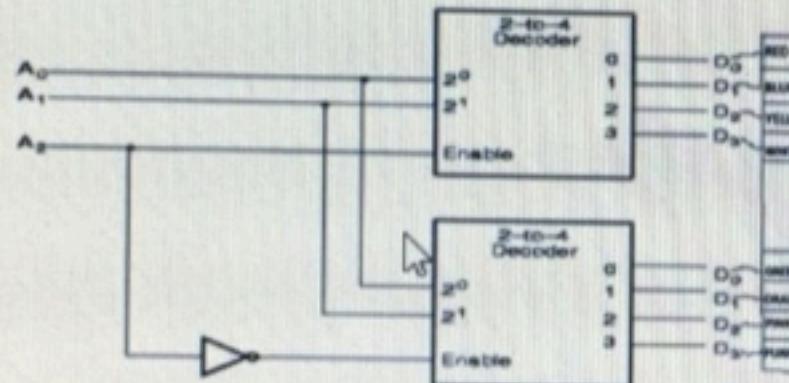
**Question 27**

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

- What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?
- What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?
- If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

## What is the correct statement about a Collision Domain?

Select one:

- A collection of two or more computers in which, if more than one sender tries to send data simultaneously, the signals will collide in the transmission media and make all the sent information unusable.
- In a router, all ports are in a single collision domain
- A collection of two or more computers in which, if one sender tries to send data, the signal will collide in the transmission media and make the sent information unusable.
- A collection of two or more computers in which, one computer tries to send data after another computer, the signals will collide in the transmission media and make all the sent information unusable.
- None of the mentioned is true.

**24**

answered

out of

question

is comprised with a combinational circuit and memory elements.

**25**

answered

out of

question

is the building block of memory devices.

**26**

of the following

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

4

swered

ut of

question

. Match the description with the appropriate ISO-OSI Layer

Allows users to access network resources

Choose... ▾

Translate, Encrypt & Compress Data

Choose... ▾

Organizes bits into frames which helps hop-to-hop delivery

Choose... ▾

Provide reliable process to process message delivery

Choose... ▾

15

nswered

ut of

\_\_\_\_\_ refers to the physical or logical arrangement of a network.

Select one:

Protocol

Question 18  
Not yet answered  
0 out of 1  
Avg question

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

Select one:

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



Question 19  
Not yet answered  
0 out of 1  
Avg question

Select the correct statement about hubs.

Select one:

- Hub a...

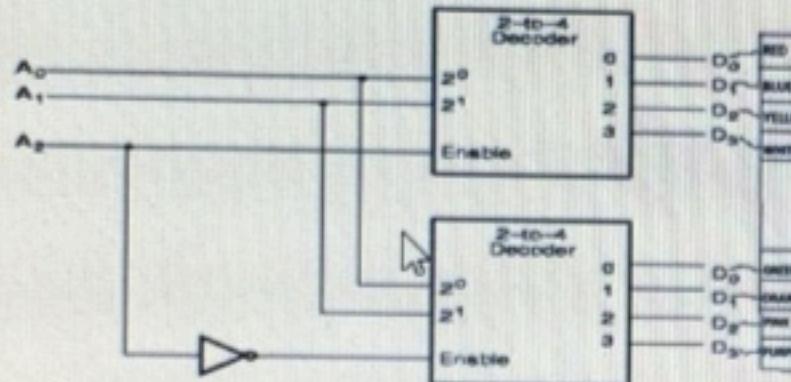
**Question 27**

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

- What are the input values that must be provided for A2, A1, A0 respectively, to have the BLUE light ON?
- What are the input values that must be provided for A2, A1, A0 respectively, to have the GREEN light ON?
- If you need to have both the RED and GREEN lights ON, what is the modification you need to do to the above circuit?

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

**Question 3**

Not yet answered

Marked out of  
0.50

 Remove flag

What is the meaning of "Broadcasting" in Networking?



Select one:

- None of the mentioned is correct.
- Addressing a packet to all machines.
- Addressing a packet to all except a particular machine.
- Addressing a packet to a particular machine.
- Addressing a packet to group of machines.

**Question 4**

Not yet answered

Marked out of  
0.50

 Flag question

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

Select one:

What does a Protocol define?

Select one:

- Protocol defines what data is communicated.
- Protocol defines when data is communicated.
- Protocol defines why data is communicated.
- Protocol defines how data is communicated.
- None of the mentioned is true.



Which of the following are not networking devices? (Select two)

Select one or more:

- Router
- Linux
- Gateway
- ALU
- Switch

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

Select one:

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

Match the correct port category description to port numbers.

Well-known port numbers

Choose...



Dynamic/Private port numbers

Choose...



49152 to 65535

Registered port numbers

1024 to 49151

0 to 65535

0 to 1023

Match the description with the appropriate ISO-OSI Layer

**A Denial of Service Attack (DoS) using ping command****Question 14**

Not yet answered

Marked out of  
0.50 Flag question

Select one:

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

**Question 15**

Not yet answered

Marked out of

Which of the following statements describe the network shown in the diagram?

What is the meaning of "Broadcasting" in Networking?

Select one:

- Addressing a packet to group of machines.
- Addressing a packet to a particular machine.
- Addressing a packet to all machines.
- None of the mentioned is correct.
- Addressing a packet to all except a particular machine.

Select the correct order of ISO-OSI layered reference model.

Layer 7	Choose...
Layer 6	Choose...
Layer 5	Application Layer
Layer 4	Session Layer
Layer 3	Transport Layer
Layer 2	Data Link Layer
Layer 1	Network Layer
	Physical Layer
	Presentation Layer
	Communication Layer

Select the correct order of ISO-OSI layered reference model

Layer 7 Application Layer ▾

Layer 6 Presentation Layer ▾

Layer 5 Session Layer ▾

Layer 4 Transport Layer ▾

Layer 3 Network Layer ▾

Layer 2 Data Link Layer ▾

Layer 1 Physical Layer ▾

Select one:

- Converged networks carry data, voice, video & images over the same network.
- Converged networks carry social networking data.
- None of the given statements are true.
- Converged networks are LANs.
- Converged networks are private networks.

A television broadcast is an example of \_\_\_\_\_ transmission

Select one:

- Full duplex
- None of the given answers are correct.
- Simplex
- Automatic
- Half duplex

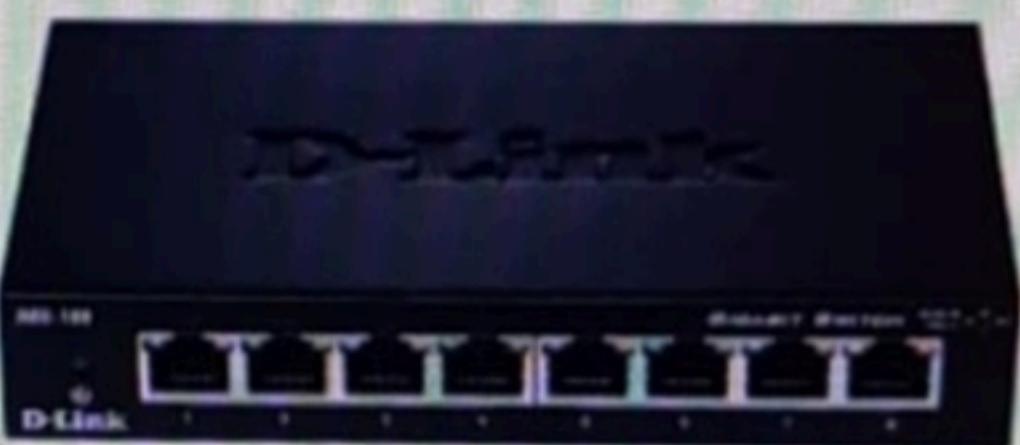
What is "Attenuation" in a data transmission medium?

Select one:

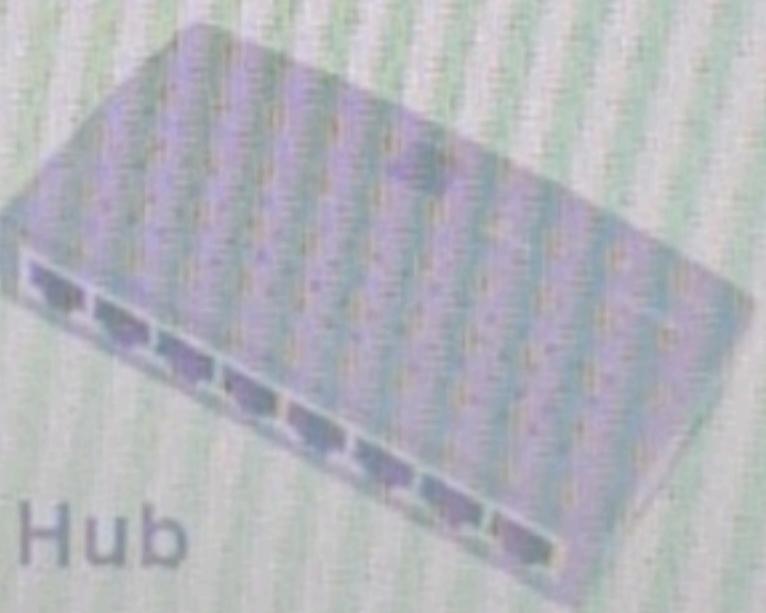
- Loss of signal strength.
- None of the mentioned is true.
- Reflecting of a signal at an interface.
- An unwanted signal component.
- One signal getting mixed up with another signal.

Scalability indicates how many nodes are currently on the network.

Which of the following statement is true regarding the given figure?



Repeater



Hub

Select one:

- a. These devices are used to build a PAN
- b. These devices are used to connect multiple networks
- c. These devices are used to build a LAN
- d. These devices cannot be used to create a network



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

Select one or more:

- Availability is a measure of the probability that the network will be available for use when it is required.
- Reliability indicates the non-dependability of the components that make up the network.
- The data rate is measured by bits per second of a given link in the network.
- The logical topology is the arrangement of cables, network devices, and end systems.
- Scalability indicates how many nodes are currently on the network.

Which of the following statement is true regarding the given figure?



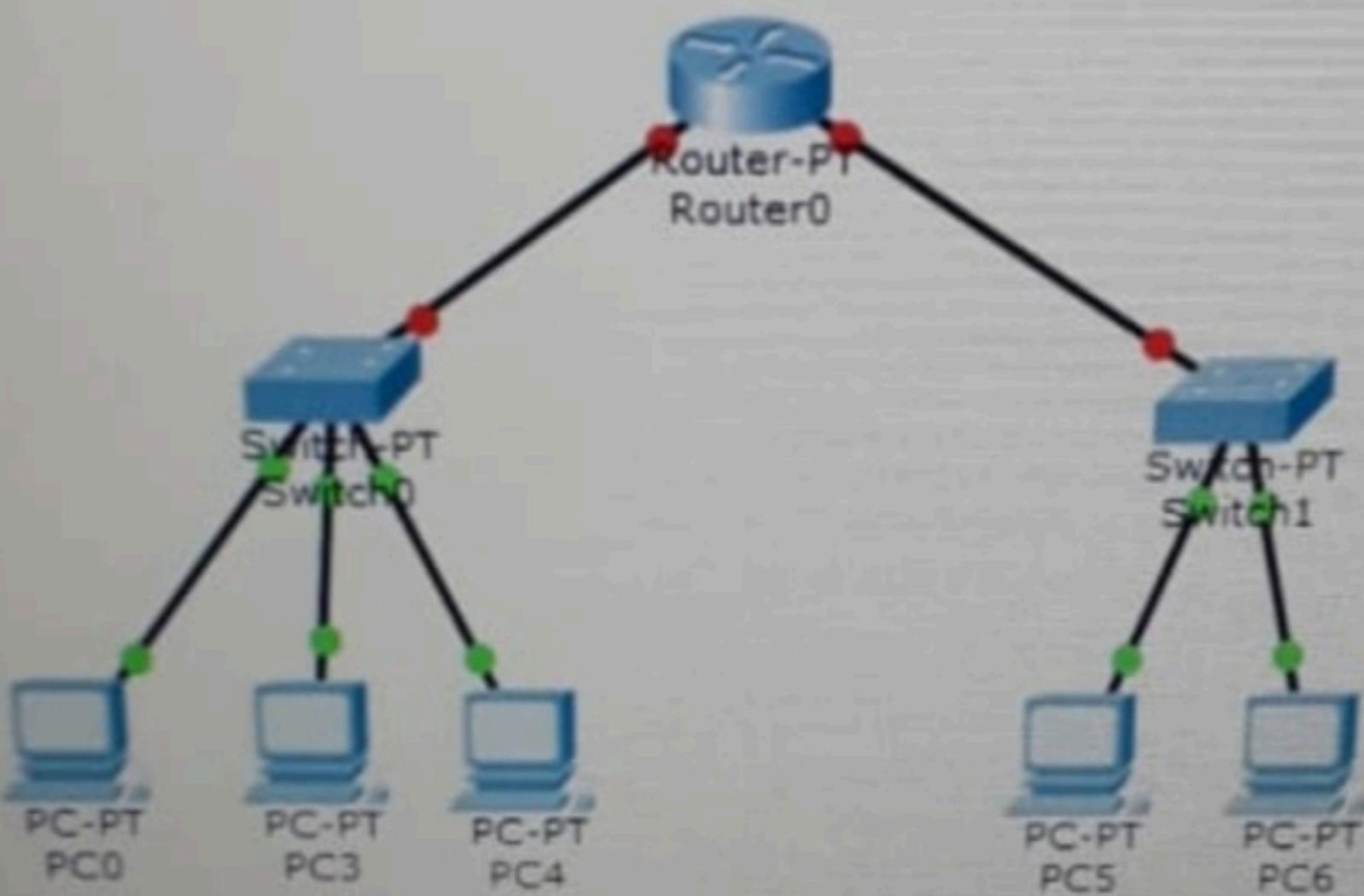
Repeater

Hub

- c. Internet is governed by International Standardization Organization (ISO)
- d. Internet protocols are managed by IETF

0  
Answered  
out of  
question

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



Select one or more:

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

Select the correct statement about hubs.

Select one:

- Hub always unicast messages.
- Hub always broadcast messages.
- Hub functions are similar to switch.
- None of the given statements are true.
- Hub maintains a MAC table for data forwarding



2001:db8:85a3::8a2e:370:7334

Choose...

Choose...

- Class A Subnet Mask
- IPv4 Address
- MAC Address
- Class C Subnet Mask
- IPv6 Address

34-F3-9A-36-68-BB

172.16.10.9

255.0.0.0

255.255.255.0

Choose...

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

Select one or more:

- Availability is a measure of the probability that the network will be available for use when it is required.
- Reliability indicates the non-dependability of the components that make up the network.
- The data rate is measured by bits per second of a given link in the network.
- The logical topology is the arrangement of cables, network devices, and end systems.
- Scalability indicates how many nodes are currently on the network.

Which of the following statement is true regarding the given figure?



Which of the following statement is true?

Select one:

- a. Both IP and MAC addresses are virtual addresses
- b. IP Address is a physical Address and MAC Address is a logical Address
- c. IP Address is a physical Address
- d. MAC Address is logical address
- e. IP Address is a logical Address and MAC Address is a physical Address



Match the correct threat type to the given scenario.

A Malware program attached to another program to execute a particular unwanted function on a system

A Denial of Service Attack (DoS) using ping command

Lots of rain causing floods and damaging the data center

Match the description with the appropriate ISO-OSI Layer

Translate, Encrypt & Compress Data

Choose... ▾

Allows users to access network resources

Choose... ▾

Organizes bits into frames which helps hop-to-hop delivery

Choose... ▾

Provide reliable process to process message delivery

Choose... ▾

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

Select the correct statement.

Select one:

- None of the given answers are true.
- A private network is not directly connected to Internet.
- In a private network, it is mandatory to follow Internet standards.
- If a network is directly connected to Internet, it will become a part of Internet.
- A private network is a set of interconnected Intranets.

Match the given address to the correct address type.

FE80:CD00:0000:0CDE:1257:0000:211E:729C

Choose...



00:1B:44:11:3A:B7

Choose...



203.147.23.20

Choose...



Modem

Which characteristic is not addressed by a network architecture design.

Select one:

- Quality of Service.
- Durability.
- Fault Tolerance.
- Security.
- Scalability.

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.

Choose...

Choose...

- Accounting
- Authentication
- Authorization

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

Using a username and password to login to Courseweb

Which of the following factors is not considered when selecting intermediate devices?

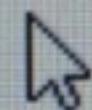
Select one:

- a. Weight (portability) of the device
- b. Cost
- c. Device Speed
- d. Number of Ports
- e. Manageability of the Device

Which **characteristic** is not addressed by a network architecture design.

Select one:

- Scalability.
- Durability.
- Quality of Service.
- Security.
- Fault Tolerance.



Match the ISO-OSI Layer to correct address type used in Network Communications.

Network Layer

IP Address

Data Link Layer

Choose...

Transport Layer

Choose...

Match the correct threat type to the given scenario.

Lots of rain causing floods and damaging the data center

A Malware program attached to another program to execute a particular unwanted function on a workstation

A Denial of Service Attack (DoS) using ping command

Select the correct order of ISO-OSI layered reference model.

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

Select one or more:

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



Select the correct order of ISO-OSI layered reference model.

1

answered

out of

g question

Which of the following factors is not considered when selecting intermediate devices?

Select one:

- a. Number of Ports
- b. Cost
- c. Weight (portability) of the device
- d. Device Speed
- e. Manageability of the Device

2

yet answered

out of

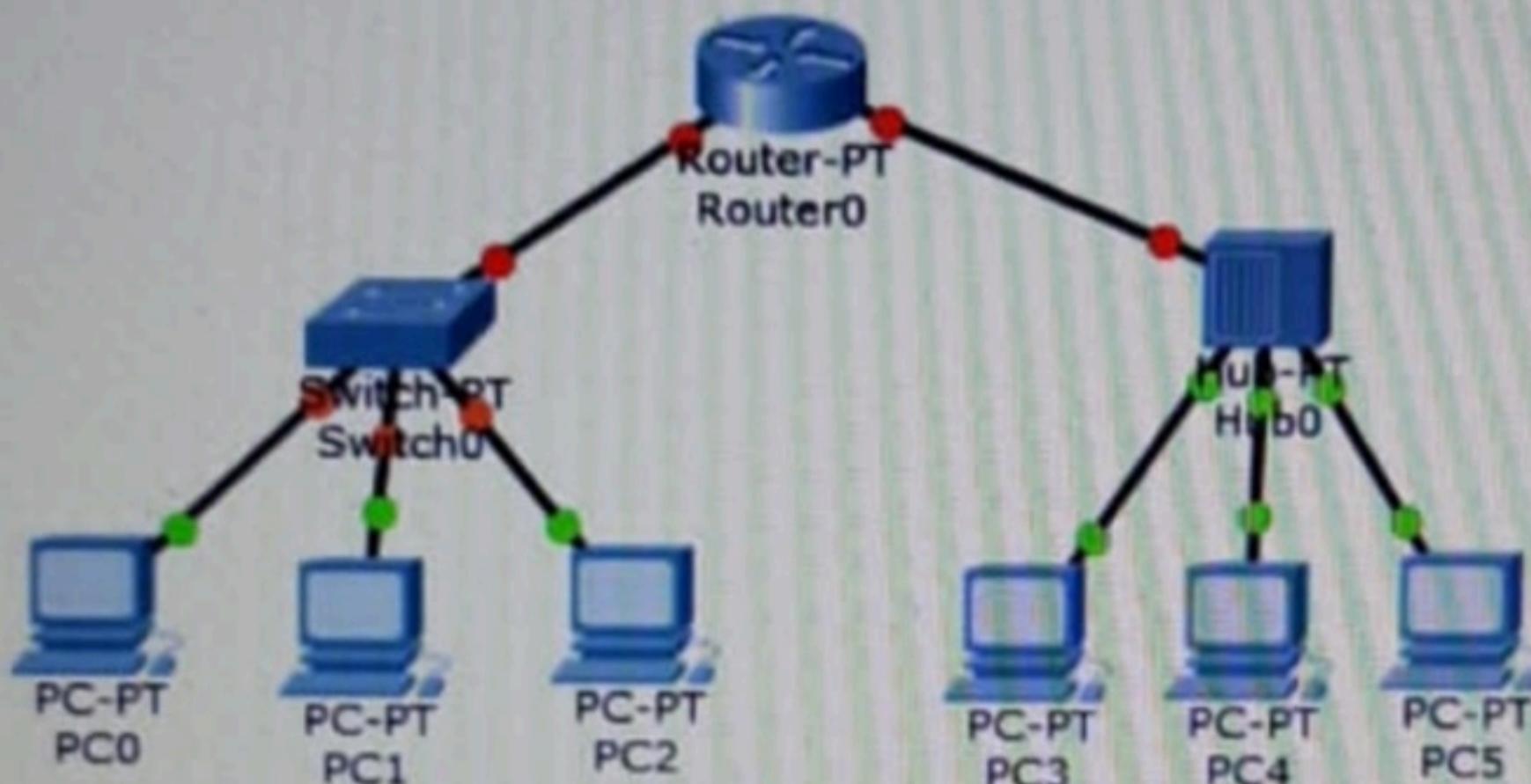
Select the most suitable statement.

Select one:

Registered port numbers

1024 to 49151

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



Select one or more:

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

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.

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

- A. Write the minterm numbers that will be in the Boolean equation represented by the K-Map above. (Ex: use  $m_1$  to represent minterm 1)
- B. After carefully studying the problem again, you found out that it is not a problem even minterms 3, 11, and 13 being 0 or 1. By taking your new findings into consideration, simplify above K-map. Write the simplified Boolean equation in SoP form. (Write  $AB\bar{C}\bar{D}$  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: