



Virtual University

About Us

CS610  
Solved Final Term Paper 11

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Year  
2017

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the Name of Allāh, the Most Gracious, the Most Merciful

#### Paper Pattern

MCQS 40 each 1 mark  
Short 4 each 2 marks  
Short 4 each 3 marks  
long 4 each 5 marks

Question No : 1 of 52

Marks: 1 (Budgeted Time 1 Min)

----- have advantages arisen from the size and ease of computation.

Answer ( Please select your correct option )

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☐ CRC

☒ Parity

☐ Checksums

☐ VRC

Made by: Waqar Siddhu

Question No : 2 of 52

Marks: 1 (Budgeted Time 1 Min)

The original Ethernet hardware operated at a rate of -----

Answer ( Please select your correct option )

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☐ 10 Mbps

☐ 1000 Mbps

☒ 3 Mbps

☐ 100 Mbps

Made by: Waqar Siddhu



Question No : 3 of 52

Marks: 1 (Budgeted Time 1 Min)

A----- provides mechanism that automatically assigns a physical address to a station when the station first boots.

Answer ( Please select your correct option )

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☐ Static addressing scheme

☐ Configurable addressing scheme

☒ Dynamic addressing scheme

☐ Dynamic Host Configuration

Made by: Waqar Siddhu

Question No : 4 of 52

Marks: 1 (Budgeted Time 1 Min)

NICs contain analogue circuitry and \_\_\_\_\_ that allows the NIC to operate independent of the CPU.

Answer ( Please select your correct option )

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☐ DMA(Direct Memory Access)

☐ Multiplexer

☐ Transceiver

☒ Microprocessor

Made by: Waqar Siddhu

Question No : 5 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ identifies which application program on receiving computer should receive the data

Answer ( Please select your correct option )

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☐ Logical address

☐ Source port

☐ Logical address

☐ Source port

☒ Destination Port

☐ Physical Address

Made by: Waqar Siddhu



Question No : 6 of 52

Marks: 1 (Budgeted Time 1 Min)

The Border Gateway Protocol (BGP) uses \_\_\_\_\_ for all communication

Answer ( Please select your correct option )

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☐ TCP

☐ Both UDP and TCP

☐ TCP/IP

☐ UDP

Made by: Waqar Siddhu

Question No : 7 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ is ideal in a situation where the group is small and all members are attached to contiguous Local Area Networks.

Answer ( Please select your correct option )

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☒ Flood-and -Prune

☐ Configuration-and -Tunneling

☐ Core-Based Discovery

☐ Forwarding

Made by: Waqar Siddhu

Question No : 8 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ is ideal in a situation where the group is geographically dispersed (i-e., has a few members at each site, with sites separated by long distances).

Answer ( Please select your correct option )

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☐ Forwarding

☐ Flood-and -Prune

☒ Configuration-and -Tunneling

☐ Core-Based Discovery

Made by: Waqar Siddhu



Question No : 9 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ message is encapsulated in an \_\_\_\_\_ datagram and sent across the Internet.

Answer ( Please select your correct option )

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☐ IP, TCP

☒ TCP, IP

☐ TCP, UDP

☐ UDP, TCP

Made by: Waqar Siddhu

Question No : 10 of 52

Marks: 1 (Budgeted Time 1 Min)

One repeater \_\_\_\_\_, two repeaters \_\_\_\_\_ the maximum cable length limitation.

Answer ( Please select your correct option )

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☐ Square root, Cube root

☒ Double, Triple

☐ Triple, Quad

☐ Double, Quad

Made by: Waqar Siddhu

Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

Inside a computer, each classful address mask is stored as a \_\_\_\_\_ value.

Answer ( Please select your correct option )

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☐ 16-bit

☐ 48-bit

☒ 32-bit

☐ 8-bit

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Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

In network address suffix values will be \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ Half 1s

☐ All 1s

☐ Half 0s

☐ All 0s

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Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

To \_\_\_\_\_ network traffic, ARP software extracts and saves the information from a response so that it can be used for subsequent packets.

Answer ( Please select your correct option )

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☐ Maintain

☐ Increase

☒ Reduce

☐ Boost

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Question No : 14 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ is used for delay sensitive applications requiring high data rate.

Answer ( Please select your correct option )

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☐ Constant Bit Rate (CBR) service

☐ Variable Bit Rate (VBR) service

☒ Available Bit Rate (ABR) service

☐ Uniform Bit Rate (UBR) service

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Question No : 15 of 52

Marks: 1 (Budgeted Time 1 Min)

The special type of address in IPv6 used for single destination computer is known as \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ Anycast

C

☒ Unicast

C

☐ Multicast

C

☐ Broadcast

C

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Question No : 16 of 52

Marks: 1 (Budgeted Time 1 Min)

In IPv6 the type of address used for collection of computers with same prefix is known as \_\_\_\_\_.

Answer ( Please select your correct option )

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☒ Cluster

C

☐ Unicast

C

☐ Multicast

C

☐ Anycast

C

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Question No : 17 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ does not need to pre-establish communication and also there is no need to terminate communication.

Answer ( Please select your correct option )

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☐ ICMP

C

☒ UDP

C

☐ TCP

C

☐ IP

C

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Question No : 18 of 52

Marks: 1 (Budgeted Time 1 Min)

The time for arrival of acknowledgement packet depends upon \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ Distance to destination and current traffic conditions ✓

☐ Current traffic conditions

☐ Distance to destination

☐ Nature of the data

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Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

A popular use of \_\_\_\_\_ is TCP Splicing.

Answer ( Please select your correct option )

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☐ NAT

☒ NAPT ✓

☐ Twice NAT

☐ CAT

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Question No : 20 of 52

Marks: 1 (Budgeted Time 1 Min)

The routers within an autonomous system use a \_\_\_\_\_ to exchange routing information.

Answer ( Please select your correct option )

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☐ Exterior Gateway protocol (EGPs)

☒ Both Interior Gateway protocols (IGPs) and Exterior Gateway protocol (EGPs) ✓

☐ Border Gateway Protocol (BGP)

☐ Interior Gateway protocols (IGPs)

Made by: Waqar Siddhu



Question No : 21 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ use IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

Answer ( Please select your correct option )

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- ☒ Distance Vector Multicast Routing Protocol
- ☐ Core Based Trees
- ☐ Protocol Independent Multicast \_ Sparse Mode
- ☐ Protocol Independent Multicast \_ Dense Mode

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Question No : 22 of 52

Marks: 1 (Budgeted Time 1 Min)

A multicast routing scheme in which the protocol software builds a delivery tree from a central point is called \_\_\_\_\_.

Answer ( Please select your correct option )

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- ☐ Protocol Independent Multicast \_ Sparse Mode
- ☐ Protocol Independent Multicast \_ Dense Mode
- ☐ Distance Vector Multicast Routing Protocol
- ☒ Core Based Trees

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Question No : 23 of 52

Marks: 1 (Budgeted Time 1 Min)

Which method of Address Resolution Protocol is useful with any hardware?

Where "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange.

Answer ( Please select your correct option )

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- ☒ T
- ☐ C
- ☐ D
- ☐ C, D

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Question No : 24 of 52

Marks: 1 (Budgeted Time 1 Min)

ARP is almost always used to bind a \_\_\_\_ bit IP address to a \_\_\_\_ bit Ethernet address.

Answer ( Please select your correct option )

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☒ 32, 48

☐ 48, 32

☐ 32, 64

☐ 32, 128

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Question No : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

The term \_\_\_\_\_ refers to the general concept of a small block of data in a network.

Answer ( Please select your correct option )

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☒ Packet

☐ Byte

☐ Cell

☐ Information

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Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

The number of connections needed for N computer in direct point to point communication is equal to \_\_\_\_\_.

Answer ( Please select your correct option )

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☒  $(N^2 - N)/2$

☐  $N(N - 1)$

☐  $N^2$

☐  $N - 1$

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Question No : 27 of 52

Marks: 1 (Budgeted Time 1 Min)

Local Talk is a LAN technology that employs \_\_\_\_\_.

Answer ( Please select your correct option )

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☒ Bus topology

☐ Ring topology

☐ Mesh topology

☐ Star topology

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Question No : 28 of 52

Marks: 1 (Budgeted Time 1 Min)

FDDI can transmits data at a rate of \_\_\_\_\_.

Answer ( Please select your correct option )

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☒ 100 million bits per second

☐ 10 million bits per second

☐ 1000 million bits per second

☐ 3 million bits per second

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Question No : 29 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ places the boundary between the second and third octets.

Answer ( Please select your correct option )

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☐ Class A

☒ Class B

☐ Class C

☐ Class D

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Question No : 30 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ field tells the receiver how to order fragments within a given datagram.

Answer ( Please select your correct option )

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☐ Fragment offset

☐ Identification

☐ Header checksum

☒ Flags

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Question No : 31 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ interconnects two independent TCP connections and performs segment rewriting.

Answer ( Please select your correct option )

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☐ Twice NAT

☐ CAT

☒ TCP Splicing

☐ NAT

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Question No : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

Find the class of the address.

10100111.11011011.10001011.01101111

Answer ( Please select your correct option )

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☐ A

☒ B

☐ E

☐ C

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Question No : 33 of 52

Marks: 1 (Budgeted Time 1 Min)

Find the class of the address:

11110011.10011011.11111011.00001111

Answer ( Please select your correct option )

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A

☐

C

☐

E

☒

B

☐

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Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

Whenever IP software handles a packet, it needs to separate the destination address into a \_\_\_\_\_ and \_\_\_\_\_.

Answer ( Please select your correct option )

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Infix, suffix

☐

Postfix, Infix

☐

Infix, prefix

☐

Prefix, suffix

☒

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Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ of TCP/IP layering model is closest to network hardware.

Answer ( Please select your correct option )

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Physical Layer

☒

Network Interface Layer

☐

Data link Layer

☐

Transport Layer

☐

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Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

Base header of IPv6 is fixed size and consists of \_\_\_\_\_ octets.

Answer ( Please select your correct option )

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☐ 32

☐ 64

☒ 40

☐ 16

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Question No : 37 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ allows a host to inform a nearby router whenever the host needs to join or leave a particular multicast group.

Answer ( Please select your correct option )

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☒ IGMP

☐ OSPF

☐ BGP

☐ UDP

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Question No : 38 of 52

Marks: 1 (Budgeted Time 1 Min)

The process of using a routing table to select a next hop for a given datagram is called \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ Switching

☐ Reassembling

☒ Routing or forwarding

☐ Fragmentation

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Question No : 39 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following protocols allow(s) the sender and receiver to enforce policies.

Answer ( Please select your correct option )

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☐ RIP

☐ OSPF

☒ BGP

☐ RIP and OSPF

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Question No : 40 of 52

Marks: 1 (Budgeted Time 1 Min)

In TCP when a computer sends a segment, the \_\_\_\_\_ and \_\_\_\_\_ fields refer to incoming data.

Answer ( Please select your correct option )

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☐ Acknowledgement number, Window

☐ Sequence number, Window

☐ Acknowledgement number, Sequence number

☐ Source address, Sequence number

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Question No : 41 of 52

Marks: 2 (Budgeted Time 4 Min)

Network operator needs a temporary virtual circuit for his network. Which type of ATM virtual circuit is most appropriate in this situation?

Answer ( Please click here to Add Answer )

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Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

Does TCP/IP protocol suite include an Address Resolution Protocol (ARP) and how many types of messages are used by ARP standard? Write their names.

Answer ( [Please click here to Add Answer](#) )

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Question No : 43 of 52

Marks: 2 (Budgeted Time 4 Min)

Which multicast protocol is designed to use within an organization? Give the complete name.

Answer ( [Please click here to Add Answer](#) )

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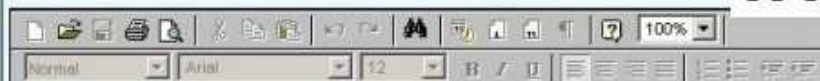
Question No : 44 of 52

Marks: 2 (Budgeted Time 4 Min)

Which types of Network Address Translation (NAT) devices are available?

Answer ( [Please click here to Add Answer](#) )

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Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

Suppose a computer B on segment 1 of a LAN sends a frame to a computer F on segment 2 of the same LAN. If the bridge receives the frame from B, just after restarted then in this case will the bridge broadcast the frame or just send it to a particular computer? Justify your answer with reason.

Answer ( [Please click here to Add Answer](#) )

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Question No : 46 of 52

Marks: 3 (Budgeted Time 6 Min)

If the application selects a datagram size greater than MTU along the path to the destination. How to handle MTU in this situation? Explain the process that may be used to handle the stated situation.

Answer ( [Please click here to Add Answer](#) )

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**Made by: Waqar Siddhu**

Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

Consider an organization where a large scale network is deployed having both the static and dynamic environment for routing. How a network administrator can handle this static and dynamic routing when some update or change is required?

Answer ( [Please click here to Add Answer](#) )

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**Made by: Waqar Siddhu**



Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

Reliability is the basic need of communication systems but some gateway protocols are considered unreliable. Discuss with reasons which gateway protocol is unreliable protocol for transportation of messages.

Answer ( [Please click here to Add Answer](#) )

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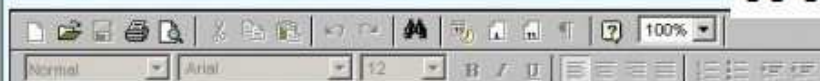
Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

Suppose a security agency wants to reduce the risk of data being compromised in its TCP based computer network. Which process is used by TCP to establish reliable connection and explain the process by giving all steps involved in this process?

Answer ( [Please click here to Add Answer](#) )

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

Suppose an organization has a computer network where multicasting is required. There are different types of multicast routing protocols that can be used in this scenario. You are required to enlist five multicast routing protocols with complete names.

Answer ( [Please click here to Add Answer](#) )

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Question No : 51 of 52

Marks: 5 (Budgeted Time 10 Min)

Suppose, as a Network Administrator of XYZ organization you are given a task to develop a network in a limited area with low cost, then which wiring scheme will you use? Justify your answer with four solid reasons.

Answer ( Please [click here](#) to Add Answer )

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Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

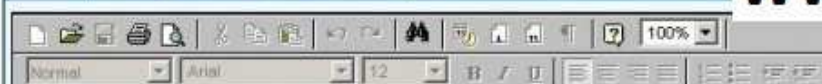
A) An internet of four networks and three routers (R1, R2 and R3) with an IP address assigned to each router interface as shown in figure (a), write the routing table as shown in figure (b) found in R2, where each entry in the table lists a destination, mask, and the next hop used to reach the destination.

B) What will be the Hop count for a packet to reach from 192.4.10.0 to 30.0.0.0?

30.0.0.7      40.0.0.8      128.1.0.9

Answer ( Please [click here](#) to Add Answer )

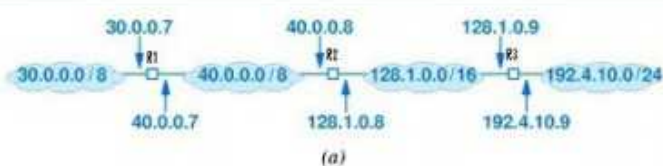
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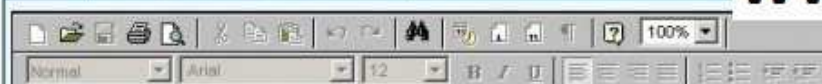
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Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

Answer ( Please [click here](#) to Add Answer )

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(a)

Destination	Mask	Next Hop
30.0.0.0		
40.0.0.0		
128.1.0.0		
192.4.10.0		

Answer ( Please [click here](#) to Add Answer )

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Rich text editor toolbar with icons for Bold, Italic, Underline, Text Color, Background Color, Bulleted List, Numbered List, Indent, Outdent, Link, Unlink, and others. The text area is empty.

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