



Virtual University

About Us

CS610  
Solved Final Term Paper 7

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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)

\_\_\_\_\_ protocols of TCP/IP layering model specify how to ensure reliable transfer.

Answer ( Please select your correct option )

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☐ Physical Layer

☐ Network Interface Layer

☐ Internet Layer

☒ Transport Layer

Made by: Waqar Siddhu

Question No : 2 of 52

Marks: 1 (Budgeted Time 1 Min)

In broadcast topology there are two categories \_\_\_\_\_

Answer ( Please select your correct option )

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☒ Satellite/Radio and Ring

☐ Satellite/Radio and Star

☐ Ring and star

☐ Satellite/Radio

Made by: Waqar Siddhu



Question No : 3 of 52

Marks: 1 (Budgeted Time 1 Min)

In -----, network occupies the smaller area like a room a floor or a building

Answer ( Please select your correct option )

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☒ LAN

☐ WAN

☐ MAN

☐ PAN

Made by: Waqar Siddhu

Question No : 4 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 : 5 of 52

Marks: 1 (Budgeted Time 1 Min)

----- uses distance vector approach to define routing

Answer ( Please select your correct option )

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☐ BGP

☐ OSPF

☒ RIP

☐ EGP

Made by: Waqar Siddhu

Question No : 6 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 : 7 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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☐

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)

A datagram cannot be larger than \_\_\_\_\_ of a network over which it is sent.

Answer ( Please select your correct option )

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☐

IP header

☐

MTU



doubt

☐

Size

☐

Frame header

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)

If the sending computer crashes before transmitting a complete frame, the \_\_\_\_\_ will not arrive and the receiver will know that the frame is \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ soh, complete

☐ soh, incomplete

☐ eot, incomplete

☐ eot, complete

Made by: Waqar Siddhu

Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

----- was especially most concerned about the lack of highly powered computers.

Answer ( Please select your correct option )

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☒ ARPA

☐ IEEE

☐ EIA

☐ Government

Made by: Waqar Siddhu

Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

"Frame type" field of the header consists of \_\_\_\_\_ bits.

Answer ( Please select your correct option )

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☐ 8

☐ 10

☒ 16

☐ 32

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Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

A bridge functions in the \_\_\_\_\_ layer(s).

Answer ( Please select your correct option )

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☐ Physical

☐ Data link

☒ Network and Data link

☐ Physical and Data link

Made by: Waqar Siddhu

Question No : 14 of 52

Marks: 1 (Budgeted Time 1 Min)

If bridge cannot find \_\_\_\_\_ in its tables then forwards frames to the other segment.

Answer ( Please select your correct option )

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☐ IP address

☒ Destination address

☐ Source address

☐ Port address

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Question No : 15 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

Made by: Waqar Siddhu

Question No : 16 of 52

Marks: 1 (Budgeted Time 1 Min)

In which method of Address Resolution Protocol the implementation is more difficult?

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

☐ T

☐ C

☒ D

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Question No : 17 of 52

Marks: 1 (Budgeted Time 1 Min)

Connectionless service and arbitrary interaction are the characteristics of \_\_\_\_\_

Answer ( Please select your correct option )

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☐ TCP

☒ UDP

☐ IP

☐ ICMP

Made by: Waqar Siddhu

Question No : 18 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ provides application-to-application communication, also called end-to-end communication.

Answer ( Please select your correct option )

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☐ IP

☒ Transport Protocol

☐ RIP

☐ ARP

Made by: Waqar Siddhu

Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

We use the term \_\_\_\_\_ refers to measure the path that routing software uses at the time of selecting optimal route.

Answer ( Please select your correct option )

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☐ Routing metrics

☐ Routing path

☐ Routing

☐ Switching

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Question No : 20 of 52

Marks: 1 (Budgeted Time 1 Min)

Typical internet routing uses a combination of two metrics \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ Administrative cost and routing metrics

☐ Routing metrics and hop count

☐ Administrative count and hop cost

☐ Administrative cost and hop count

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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)

ATM is designed to work on\_\_\_\_\_.

Answer ( Please select your correct option )

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- ☐ Twisted Pair
- ☐ Coaxial
- ☐ Radio Frequency
- ☒ Fiber ✓

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Question No : 23 of 52

Marks: 1 (Budgeted Time 1 Min)

In which method of Address Resolution Protocol the protocol address is independent of hardware address?

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
- ☒ T, D ✓

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Question No : 24 of 52

Marks: 1 (Budgeted Time 1 Min)

Most LANs that employ ring topology use an access mechanism known as \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ CSMA/CD

☐ CSMA/CA

☒ Token Passing

☐ Aloha

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Question No : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ places the boundary between the first and second 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 : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ places the boundary between third and fourth 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 : 27 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 : 28 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 : 29 of 52

Marks: 1 (Budgeted Time 1 Min)

Virtual packets serve same purpose on \_\_\_\_\_ as frames on \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ Intranet, LAN

☐ Internet, WAN

☐ Intranet, WAN

☒ Internet, LAN

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Question No : 30 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ protocols of TCP/IP layering model specify the format of packets sent across internet through one or more routers to a final destination.

Answer ( Please select your correct option )

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☐ Physical Layer

☐ Data link Layer

☒ Internet Layer

☐ Transport Layer

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Question No : 31 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ protocols of TCP/IP layering model specify how to organize data into frames and how a computer transmits frames over a network.

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 : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

A \_\_\_\_\_ is a special-purpose device dedicated to the task of interconnecting networks.

Answer ( Please select your correct option )

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☒ Router

☐ Hub

☐ Switch

☐ Repeater

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Question No : 33 of 52

Marks: 1 (Budgeted Time 1 Min)

IPng stands for \_\_\_\_\_.

Answer ( Please select your correct option )

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☐ IP New Generation

☐ IP N<sup>th</sup> Generation

☒ IP Next Generation

☐ IP Net Generation

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Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

Router that decrements TTL to \_\_\_\_\_ and sends ICMP time exceeded message with router's address as source address.

Answer ( Please select your correct option )

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☐ 1

☒ 0

☐ 3

☐ 2

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Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

ICMP is used by \_\_\_\_\_ to communicate the network-level information.

Answer ( Please select your correct option )

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☐ Hub

☒ Router

☐ Repeater

☐ Amplifier

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Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

Reliability is the responsibility of the \_\_\_\_\_ layer

Answer ( Please select your correct option )

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☐ Network

☐ Data link

☒ Transport

☐ Application

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Question No : 37 of 52

Marks: 1 (Budgeted Time 1 Min)

\_\_\_\_\_ includes 32-bits address mask with each address to make the address class full, classless or sub netted.

Answer ( Please select your correct option )

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☐ RIP

☒ OSPF

☐ BGP

☐ IGP

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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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☒ Routing or forwarding

☐ Fragmentation

☐ Switching

☐ Reassembling

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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)

Write any four factors by which computer networks can be classified.

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

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Normal Arial 12 B / U

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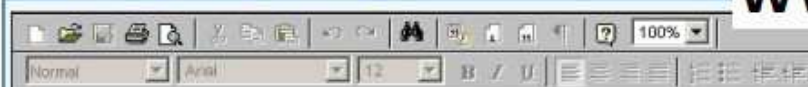
Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

Address Resolution Protocol is widely used in computer network for address mapping. Is ARP message format generally used for every frame format or has some restrictions for a specific frame format?

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

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Question No : 43 of 52

Marks: 2 (Budgeted Time 4 Min)

Which type of NAT fails when an application uses the IP address instead of domain 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 protocols are used to exchange internal and external routing information in autonomous groups? Just write the names.

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

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Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

TCP/IP supports different approaches of Address resolution algorithm in a real environment. Write their names.

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

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Question No : 46 of 52

Marks: 3 (Budgeted Time 6 Min)

Describe the structure of physical addressing in WAN. If you have a physical address (1, 5) on a switch then how will you elaborate this address?

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

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Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

User datagram protocol provides fast communication as compare to TCP while communicating between devices in computer network. Best effort delivery is also one service of UDP. What is the main purpose of this service and also write the real time example of UDP.

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

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Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

It is very tedious work to manage a multicast type of transmission in an IP network but some characteristics are there which not only make IP multicast easy but also make it unique. You are required to describe these characteristics in detail.

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

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Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

Suppose being a network engineer you are given a task to design such type of network which would be able to overcome failure by itself. Which network technology will you propose and how it will work?

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

Assume an enterprise is restructuring an existing network and decides to deploy IPv6 as the main protocol within the enterprise coexisting with IPv4. Does boundary limit exist in IPv6 addressing scheme and what types of special addressing are used in IPv6? Explain each type.

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

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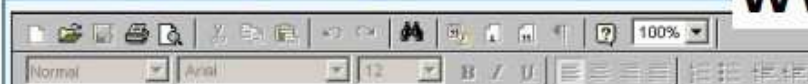
Question No : 51 of 52

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 : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

Suppose an organization has more than one autonomous system where EGP is used to exchange routing information between networks. Justify with reasons why EGP does not use routing metrics? Briefly explain with an example.

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

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