

CS610 Solved MCQS 100% Correct

_____ of TCP/IP layering model, corresponds to basic network hardware.

- **Physical Layer**
- Network Interface Layer
- Internet Layer
- Transport Layer

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

- Physical Layer
- Network Interface Layer
- Internet Layer
- **Transport Layer**

_____ is called an end-to-end protocol because it provide a connection directly from an application on one computer to an application on a remote computer.

- IP
- **UDP**
- TCP
- None of the given

_____ uses distance vector approach to define routing

- BGP

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- · OSPF
- · **RIP**
- · None of the given

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

- · **Flood-and -Prune**
- · Configuration-and -Tunneling
- · Core-Based Discovery
- · None of the given

Router that decrements TTL to ___ sends ICMP time exceeded message, with router s address as source address

- · 3
- · 2
- · 1
- · **0**

Protocol addresses are abstractions provided by _____.

- · hardware
- · **software**
- ·
- · internet

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

- **True**
- False

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

- **32, 48**
- 24, 32
- 32, 64
- 32, 128

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- False
- **True**

In which method of Address Resolution Protocol the protocol address is determined by hardware address? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- T
- D
- **C**

- · T, C

Which method of Address Resolution Protocol is useful with any hardware?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- · **T**
- · C
- · D
- · C, D

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

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

- · T, C
- · T
- · C
- · **D**

Which method of Address Resolution Protocol resolution with minimum delay?

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

- · T, D
- · c
- · T
- · **T, C**

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The general form of an IP datagram is with a header followed by data. The header contains information that controls where and how the datagram is to be sent.

- **True**
- False

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

- True
- **False**

----- was especially concerned about the lack of high powered computers.

- IEEE
- APRA (wrong spelling)
- EIA
- **None**

Missing eot indicates sending computer crashed in frame format.

- **True**
- False

The -----term refers to the general concept of a small block of data.

- **Packets**
- Data
- Frame

- · None of given

CRC can detect more errors than a simple checksum.

- · **True**
- · False

The network that uses a -----, usually consist of a single long cable to which computer attach.

- · Star topology
- · **Bus topology**
- · Ring topology
- · None of the given

LAN that use ATM technology have a -----

- · Star topology
- · Bus topology
- · Ring topology
- · **None of the given**

A bridge uses ----- to determine which computer is connected to which segment, and uses the ----- to determine whether to forward a copy of frame.

- ·
- ·

- .
- .

----- has a jitter zero

- . Virtual Private Network
- . **Isochronous Network**
- . Asynchronous Network
- . None of the given

The network with Throughput T and Delay D has a total ----- bits in transit at a time.

- . $D + T$
- . $D - T$
- . **$D \times T$**
- . D / T

One repeater -----, two repeaters ----- the maximum cable length limitation.

- . **Double, triple**
- . Double, 4 time
- . half, triple
- . Double, half

End-to-end delivery service is connection oriented.

- · True
- · **False**

A single networking technology is best for all needs.

- · True
- · **False**

Twice NAT allows a site to run servers.

- · **True**
- · False

_____ device is used for multicasting.

- · Hub
- · Switch
- · **Router**
- · none of the given

_____ does not depend on any particular unicast routing protocol.

- · PIM-DM
- · **PIM-SM**
- · PIM-AM
- · none of the given

A routing table contains_____

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- · The destination network ID
- · The hop count to reach the network
- · **The router ID of the next hop**
- · All of the given

_____ can be used to propagate information about remote networks.

- · **Dynamic routing**
- · Static routing
- · Address resolution
- · None of the given

_____ protocol is designed to use within an organization.

- · OSPF
- · MEOSPF
- · **MOSPF**
- · none of the given

NAPT stands for _____

- · Network Address and Protocol Translation
- · **Network Address and Port Translation**
- · Network Address and Packet Translation

- · None of the given

In dynamic routing, the routing table is initialized when system boots.

- · **True**
- · False

OSPF includes _____ address mask with each address.

- · 30Bit
- · **32Bit**
- · 34Bit
- · none of the given

Twice NAT fails if an application uses the IP addresses instead of Domain Name.

- · **True**
- · False

_____ uses window mechanism to control the flow of data.

- · IP
- · UDP
- · **TCP**
- · none of the given

TCP uses _____ mechanism to control the flow of data.

- · door

- · **window**
- · acknowledgment
- · retransmission

IGPs stand for _____

- · Internal Gateway Protocols
- · **Interior Gateway Protocols**
- · Intermediate Gateway Protocols
- · None of the given

_____ protocol uses distance vector algorithm.

- · IGP
- · BGP
- · **RIP**
- · none of the given

_____ measures distance in network hops, where each network between the source and destination counts as single hop.

- · BGP
- · OSPF
- · **RIP**
- · Non of these

Network Address Translation (NAT) requires device to perform packet translation.

- **True**
- False

We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- routing path
- **routing metric**
- routing
- switching

Part of the 3-way handshake used to create a connection, requires each end to generate a random _____ sequence number.

- **32 bit**
- 16 bit
- 8 bit
- 64 bit

Reconstruction of original datagram is called reassembly.

- **True**
- False

Reliability is the responsibility of the _____ layer.

- · **Transport**
- · Network
- · Physical
- · Internet

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

- · **Flood-and -Prune**
- · Configuration-and -Tunneling
- · Core-Based Discovery
- · None of the given

In Direct point to point communication adding the Nth computer requires-----
new connections.

- · None of the given
- · N^2
- · **N-1**
- · $(N^2 - N)/2$

The number of connections needed for N computer in direct point to point communication is equal to:

- · **$(N^2 - N)/2$**
- · $N(N-1)$

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- · N^2
- · None of the given

Hardware that calculates a CRC uses two simple components.

- · AND unit and XOR unit
- · **Shift register and XOR unit**
- · Shift register and AND unit
- · None of the given

The Gigabit Ethernet hardware operates at a rate of -----

- · 10 Mbps
- · 100 Mbps
- · **1000 Mbps**
- · None of the given

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- · Greedy algorithm
- · Distance vector algorithm
- · **Dijkstra's algorithm**
- · Non of the given

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- · **Connectionless service paradigm**
- · Connection-oriented service paradigm
- · Both Connectionless and Connection-oriented service paradigm
- · None of the given

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- · 48-bit
- · **32-bit**
- · 24-bit
- · None of the given

The address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- · **prefix , suffix**
- · suffix , prefix
- · suffix , suffix
- · None of the given

_____ places the boundary between the first and second octets

- · **Class A**
- · Class B
- · Class C

- · Class D

_____ places the boundary between the second and third octets.

- · Class A
- · **Class B**
- · Class C
- · Class D

_____ places the boundary between the third and fourth octets.

- · Class A
- · Class B
- · **Class C**
- · Class D

_____ Field of header indicates whether a datagram is a fragment or a complete datagram.

- · **FLAGS**
- · FLAGMENT OFFSET
- · IDENTIFICATION
- · None of the given

_____ provides connectionless service.

- · TCP

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- · **UDP**
- · IP
- · None of the given

UDP and TCP are both _____ layer protocols

- · Physical
- · Data link
- · Network
- · **Transport**

_____ identifies which application program on receiving computer should receive the data

Logical address

- · Source port
- · **Source port**
- · Destination Port
- · None of the given

_____ identifies the application program that sent the data.

- · Destination Port
- · **Source port**
- · Logical address

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- · None of the given

The Border Gateway Protocol (BGP) uses _____ for all communication

- · UDP
- · **TCP**
- · Both UDP and TCP
- · None of the given

Which of the following protocols allows the sender and receiver to enforce policies.

- · RIP
- · OSPF
- · **BGP**
- · RIP and OSPF

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- · True
- · **False**

These ICMP message transport is acted upon _____ as frames on _____

- · Intranet, LAN
- · Internet, WAN
- · Intranet, WAN
- · **Internet, LAN**

Address mask defines how many bits of address are in suffix?

- True
- **False**

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

- **True**
- False

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address _____.

- **itself**
- prefix
- suffix
- mask

Find the class of the address:

11110011 10011011 11111011 00001111

- A
- C
- **E**
- B

There are three standard implementations to improve computational efficiency: Hashing, Direct Indexing and Indirect

Indexing

False

A _____ address-binding table is used for each physical network.

New

Similar

Separate

Old

_____ layer Provides reliable delivery of datagram.

Network

Transport

Datalink

none of the given

Due to revolutionalization of IP-V6 the speed has increased from _____

512 to 1 GB

_____ encapsulates IP datagram as data area in hardware frame.

Network Interface Layer

Datalink Layer

Network Layer

none of the given

_____ Field of header indicates whether a datagram is a fragment or a complete datagram.

FRAGMENT OFFSET

as the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of four possible sizes.

False

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of _____ possible sizes.

Three

Header contains all information needed to deliver datagram to the destination computer. But which one of the following is not included:

Rectifier

_____ contains all information needed to deliver datagram to the destination.

Header

one of the parameters, which motivated IP for change is address space. The

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_____ address space allows for over a million networks. But most networks are class C and too small for many organizations.

32-bit

Class A mask is 255.0.0.0 which is used for _____

Sub netting

Postfix defines how much of address used to identify network.

False

_____ field is used to identify a specific path through the network

FLOW LABEL

_____ is a technique used to Limit datagram size to small MTU of any network

Fragmentation

Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string.

True

In _____, the protocol address assigned to a computer is chosen carefully so that computer's hardware address can be computed from the protocol address using basic Boolean and arithmetic operations.

Closed-form Computation

Routers use _____ to forward datagram along prearranged path.

Flow label

Mapping between a protocol address and a hardware address is called Address Resolution.

True

Preliminary version of IP was called _____.

IP - Next Generation (IPng)

_____ Source is responsible for fragmentation.

IPV6

End to End delivery Service of IP datagram is _____

Connectionless

Every hardware technology specification includes the definition of the maximum size of the frame data area, which is called the _____ Transmission Unit.

Maximum

IPV6 addresses are _____ bits.

128

MTU Stands for _____

Maximum transmission unit

_____ shows senders preference for low latency, high Reliability.

SERVICE TYPE

NEXT HEADER field in the base header defines type of header it appears at the end of fixed-size base header.

True

There are two standard implementations to improve computational efficiency: Hashing and direct indexing

True

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

IP header

The protocol address of the next hop must be _____ to an equivalent hardware address before a packet can be sent.

Translated

The physical addressing in a WAN is similar as in LAN in the way.....

The data is transmitted in packets equivalent to frames.

Each packet has a format with header.

The packet header includes destination and source addresses.

All of the above

In Asynchronous Transfer Mode VPI/VCI fields identify the cells-----

Which one of the following is a method for computing routing table information?

Manual entry

Boot time routing

Static routing

None of the above

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All destinations on same switch have same

Router

Information

Next hop

None of the above

Which of the following statement is wrong regarding ATM?

It is a single technology for voice, video and data

It has low jitter and high capacity.

It uses fixed size, small cells, and 48 octet's data

None of the above

Which one of the following is the responsibility of Dijkstra' algorithm?

To compute the shortest path between two nodes

To extract next hop information from path information

To insert next hop information into routing table

All of the above

Which of the following statement is true regarding Link-state routing?

Network topology is separated from route computation.

Each switch builds its own routing tables.

Link-state routing uses Dijkstra's algorithm.

All of the above

Jitter is significance for -----

Voice

Video

Data

All of above

The routing table contains information about theimmediately around it.

Topology of the network

Destination

Both of the above

None of the above

(1) There are three types of Hubs that exist. Which of the following options correctly describes these three?

- a. Passive, dormant, special
 - b. Active , dormant , passive
 - c. Passive, Active, Turbo
 - d. Passive, Active, Intelligent**
2. A number of different factors determine the cost of a Hub. Which of the following is among these factors?
- a. Speed rating**
 - b. Durability
 - c. Brand
 - d. Class

Which of the following network topologies among the list below is incorrect?

- a. Star
- b. Internet**
- c. Ring
- d. Bus

Which of the following is not a feature of Base band Coaxial Cable?

- a. Bi-directional
- b. Few Kilometer range
- c. Proton based**
- d. Ethernet(basis for 802.3) at 10 Mbps

Which of the following is not a function of a repeater?

Uses Jumper Settings

Transmits data in both directions

No Buffering

Joins two (2) segments of cables

Which level of the TCP/IP reference model routes data/information across a network channel?

Application layer

Data Link Layer

Transport Layer

Network Layer

The function of a modem is to convert signals. Identify the correct signals it converts.

Analogue to Digital

Analogue to Baud rate

Baud rate to Analogue

Digital to Binary

Which of the following is not a LAN – Architecture?.

(a) Protocol architecture

Media access control

Logical Protocol

Logical Link Control

Identify the statement which best describes TCP and UDP.

TCP is a connection oriented Protocol whiles UDP is a datagram service

TCP is a protocol for the Network Layer of the OSI

UDP and TCP could be used interchangeably

TCP is an advanced protocol whiles UDP is a single protocol

Which of the following characteristics best describes a frame?

Data link layer(Header, Trailer, Data)

Network Layer(Header, Trailer, Data)

Transport Layer(Header, Trailer, Data)

Physical Layer(Header, Trailer, Data)

What does the terminology ISDN mean?

Internal Digital Services Network

Integrated Systems Digital Network

Integrated Services Digital Naming System

Integrated Services Digital Network

What does the terminology ATM mean?

Automatic transfer mode

Automatic translation mode

Asynchronous transfer mode

Asynchronous transformation mode

A simple Architecture for File Transfer is made up of :

File transfer application; Communications service module; Network access module

File transfer application; transport layer; Network access module

Network access layer; Transport layer; Application layer

Application layer; Network layer; Session layer

Which of the following statements is true about standards?

Standards create additional cost

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Standards help individuals' users to increase effectiveness

Standards allow products from multiple vendors to communicate
Standards cannot freeze technology

Which of the following statement is true about FLOW CONTROL?

Flow control is a function performed by a receiving entity to limit the amount or rate of data on a network.

Flow control adjusts the weights on a network

Flow control is a function performed by the MODEM

Flow control is an advanced form of network management

Identify the most suitable description for ERROR CONTROL?

Error control is an activity that manages deadlock.

Error control is an advanced form of parity bit

Error control is a sub-function of a modem and Hub

Error control is needed to guard against loss or damage of data

What is the full meaning of the terminology SMTP?

State Mail Transfer Protocol

Simple Mail Tailor Protocol

Simple Management Transfer Protocol

Simple Mail Transfer Protocol

Several Computers connected together is called:

Client-server

Client

Computer network

Hub

In which of the following networks does the client submit a task to the server, then the server executes and returns the result for the requesting client station?

(a) Peer-to-Peer

(b) Client-Server

Server-Based

All of the above

In which network topology are all workstations connected in cascade form?

Star

Ring

Mesh

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Bus

Which network topology uses a Hub?

Star

Bus

Mesh

Ring

Which of the following topologies is used for Ethernet?

Star

Bus

Ring

All of the above

Computers on a university campus are connected by a/an:

MAN

WAN

LAN

INTERNET

The primary function of the network layer is:

Error detection

Set up a session

Routing

Encryption

Which of the following standards apply to logical link control?

IEEE 802.3

IEEE 802.2

IEEE 802.5

IEEE 802.4

Which organization defines standards for telecommunication?

ITU

IEEE

EIA

ISO

Which of the following statements is a true description of fibre Optic Cable?

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Fiber optic cables transfer data in a mesh

Fiber optic cables transfer data in light form

Fiber optic cables are similar to coaxial cables

Non of the above

Which of the following is not true of switching technology?

Packet Switching

Link Switching

Packets are switched in the form of datagram

Circuit switching techniques

Which of the following is a true description of Multi-stage Switching?

More simple control

Increased number of crossed points

More complex control

Reduced Reliability

Flooding in networks and data communication has certain properties. Which of the options below is a property of flooding?

All possible routes are tried

All paths are loaded

All nodes are linked

Can not be used to set up virtual circuit

Identify any of the following statements which truly describe a virtual circuit.

(a) Packets are forwarded more quickly and no routing decisions

(b) **More reliable in functionality**

(c) Call set up phases are present

Packets are centralized at random and more routing decisions are made

Which of the following operating systems software is most suitable for wide area network?

DOS

OS/2

WINDOWS NT

NOVELL NETWARE

Binding is an important function in establishing communication between a Client and a Server. Which of the following statements truly describes binding in protocols?

(a) **Binding protocols to network interfaces specifies that the selected protocol can be sent and received through the selected LAN interface card.**

(b) Binding is a function of the Network Operating Systems Software

Binding is a configuration process in mail server management.

Binding serves as a security layer in operating systems.

(36) In configuring Windows NT 4.0 for Network Access. There are seven (7) areas to be addressed. Identify from the options below the area that should not be addressed.

Protocols

Bindings

IP Address

Autoexec Management

Which of the following is not a network adapter?

3 com LP III

3 com Ether link III ISA

3 com Ether link II Adapter

3 com 3C508 ISA 16 BIT

Which of the following statement is true about an IP address?

IP address is based on your computer network card

IP address is issued by a computer vendor

IP address is a Transport Protocol

IP address is not used on the internet

Which of the following is not associated with the session layer?

Control of dialogue between applications

Dialogue discipline

Data compression

Synchronization

[CS 610 Solved \(Correct\) MCQS \(References are given in Blue Font\)](#) [UMAIR SID](#)

The protocol address of the next hop must be _____ to an equivalent hardware address before a packet can be sent.

- Encrypted
- Decrypted
- Translated**
- Non of these

A _____ address-binding table is used for each physical network.

- New
- Similar
- Separate**
- Old

UDP provides connection-oriented service.

- True
- False**

TCP provides connection oriented reliable data streaming service, whereas UDP provides connection-less unreliable messaging service.

The UDP stands for_____.

- Universal Datagram Protocol
- User Datagram Protocol**
- United Datagram Protocol
- None of the given

In 3-way handshake TCP requires to generate a random _____ sequence number.

- 30 bit
- 32 bit**
- 34 bit
- none of the given

TCP stands for _____

- Transport control protocol
- Transmission control protocol**
- Terminal control protocol
- None of the given

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of three possible sizes.

Select correct option:

- True**

False

Question # 4 of 20 (Start time: 06:44:07 PM)

Total Marks: 1

Twice NAT allows a site to run servers.

Select correct option:

True

False

Preliminary version of IP was called _____.

Select correct option:

IP - New Generation (IPng)

IP - Next Generation (IPng)

IP - Net Generation (IPng)

None of the given

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of two possible sizes.

Select correct option:

True

False

_____ uses window mechanism to control the flow of data.

Select correct option:

IP

UDP

TCP

none of the given

TCP uses window mechanism to control the flow of data.

The Internet service providers coordinate with the Internet assigned number authority to obtain their network numbers.

Select correct option:

True

False

Which protocol is used to test different tools.

Select correct option:

ICMP

IGMP

TCP/IP

none of the given

USING ICMP TO TEST REACHABILITY:

ICMP can also be used to test different tools. An Internet host A, is reachable from another host B, if datagram's can be delivered from A to B. Ping program tests reachability. It sends datagram from B to A, that echoes back to B. it uses ICMP echo request and echo reply messages. Internet layer includes code to reply to incoming ICMP echo request messages.

_____ identifies the application program that sent the data.

Select correct option:

Destination Port

Source port

Logical address

None of the given

The Source can configure outgoing datagram's to avoid _____

Select correct option:

Segmentation

Defragmentation

Fragmentation

None of the given

Fragmentation should be avoided. Source can configure outgoing datagrams to avoid fragmentation. Source determines path MTU- smallest network MTU on path from source to destination.

Question # 18 of 20 (Start time: 06:57:12 PM)

Total M a r k s : 1

The time for acknowledgement to arrive depends on _____

Select correct option:

Distance to destination

Current traffic conditions

Both a and b

None of the given

The time for acknowledgement to arrive depends on:

- Distance to destination
- Current traffic conditions

which is not the type of error messages defined by ICMP.

Select correct option:

Source quench

Time exceeded

Destination unreachable

None of the given

ERROR MESSAGES:

These are as follows:

- Source quench
- Time exceeded
- Destination unreachable
- Redirect
- Fragmentation required

_____ is used to attach two autonomous systems.

Select correct option:

BGP

IGP

EGP

none of the given

Question # 2 of 20

Due to revolutionalization of IP-V6 the speed has increased from _____

Select correct option:

56kbps to 512kbps

512kbps to 1gbps

56kbps to 1gbps

none of the given

Scale is also dramatically changed. Size from a few tens to a few tens of millions
Of computers has been revolutionized. Speed has increased from 56Kbps to 1Gbps. Also

There is an increased frame size in hardware

Question # 3 of 20

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

Select correct option:

True

False

COMPUTING THE CLASS OF AN ADDRESS:

Whenever it handles a packet, IP software needs to separate the destination
Address into a prefix and suffix.

Question # 4 of 20

TTL stands for _____

Select correct option:

Time to Learn

Time to Leave

Time to Live

none of the given

Question # 5 of 20

IGPs stand for _____

Select correct option:

Internal Gateway Protocols

Interior Gateway Protocols

Intermediate Gateway Protocols

None of the given

Question # 6 of 20

_____ identifies which application program on receiving computer should
receive the data

Select correct option:

Logical address

Source port

Destination Port

None of the given

Field Destination Port identifies which application program on receiving computer should receive the data. While field source port identifies the application programs that sent the data.

Question # 7 of 20

_____ encapsulates IP datagram as data area in hardware frame.

Select correct option:

Network Interface Layer

Datalink Layer

Network Layer

None of the given

The network interface layer encapsulates an entire datagram in the data area of a hardware frame

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Question # 8 of 20

Class A mask is 255.0.0.0 which is used for _____

Select correct option:

Unicasting

Multicasting

Subnetting

All of the given

class A mask is 255.0.0.0 which is used for subnetting.

Question # 9 of 20

NAT is not useful at a residence with Cable Modem or DSL connectivity.

Select correct option:

True

False

Question # 10 of 20

Autonomous System chooses a routing protocol to exchange routing information which is passed before being summarized to another group.

Select correct option:

True

False

Question # 11 of 20

_____ layer Provides reliable delivery of datagram.

Select correct option:

Network

Transport

Datalink

none of the given

Transport layer provides reliable delivery. Network layer – IP – can detect and report errors without actually fixing them. It focuses on datagram delivery. Application

layer is not interested in differentiating among delivery problems at intermediate routers

Question # 12 of 20

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

Select correct option:

Encapsulation

Reassembling

Routing or forwarding

None of the given

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

Question # 13 of 20

The process of learning the path MTU is known as path MTU discovery.

Select correct option:

True

False

The process of learning the path MTU is known as path MTU discovery.

Question # 14 of 20

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of _____ possible sizes.

Select correct option:

three

two

four

five

Three

As the Internet grew, the original Classful addressing scheme became a limitation.

The IP address space was being exhausted because all networks had to choose one of Three possible sizes. Many addresses were unused.

Two new mechanisms were invented to overcome the limitations, which are as

Follows:

- Subnet addressing
- Classless addressing

Question # 15 of 20

End to End delivery Service of IP datagram is _____

Select correct option:

Connection oriented

Connectionless

both a and b

none of the given

Question # 16 of 20

EGP stands for _____

Select correct option:

Extension Gateway Protocol

Exterior Gateway Protocol

Explicit Gateway Protocol

none of the given

Question # 17 of 20

Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string.

Select correct option:

True

False

Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string. Hashing is used to index and retrieve items in a database because it is faster to find the item using the shorter hashed key than to find it using the original value. It is also used in many encryption algorithms.

Question # 18 of 20

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a _____ Ethernet address.

Select correct option:

16-bit

48-bit

64-bit

128-bit

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question # 19 of 20

Reliability is not the responsibility of the Transport layer.

Select correct option:

True

False

Reliability is the responsibility of the Transport layer. In TCP/IP, TCP provides reliable transport service. Most Internet applications use TCP as no other protocol has proved to work better.

Question # 20 of 20

IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

Select correct option:

<http://vustudents.ning.com//>

96

100

120

none of the given

IPv6 address with 96 leading zeros is interpreted to hold an IPv4 address **Question # 1 of 20**

NAT software does not allow a PC to connect with the Internet and act as a NAT device at the same time.

Select correct option:

True

False

Question # 2 of 20

TCP uses the term segment to refer to a _____.

Select correct option:

packet

message

both (a) and (b)

None of the given

both a and b?

TCP uses single format for all messages. TCP uses the term segment to refer to a message. Each message sent from TCP on one machine to TCP on another machine uses this format including data and acknowledgement.

Question # 3 of 20

The Universal Datagram Protocol is a message-oriented protocol.

Select correct option:

True

False

UDP has the following characteristics.

- It is an end-to-end protocol. It provides application-to-application communication.
- It provides connectionless service.
- It is a Message-Oriented protocol.
- It uses best-effort delivery service.
- It follows arbitrary interaction.
- It is operating system independent

Question # 4 of 20

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

Select correct option:

FLAGS

FLAGMENT OFFSET

IDENTIFICATION

None of the given

The FRAGMENT OFFSET field tells a receiver how to order fragments within a given datagram

Question # 5 of 20

IP datagram can contains _____ octets.

Select correct option:

0-65,535

1-65,535

1-65,536

none of the given

Datagrams can have different sizes i.e.

Header area is usually fixed (20 octets) but can have options. Data area can contain between 1 octet and 65.535 octets (216-1).

Usually, data area is much larger than header.

Question # 6 of 20

The amount of buffer space available at any time is called the window.

Select correct option:

True

False

Question # 7 of 20

_____ Source is responsible for fragmentation.

Select correct option:

IPV4

IPV6

IPv6 source (not intermediate routers) is responsible for fragmentation. Routers simply drop datagrams larger than network MTU (Maximum Transmission Unit). So source must fragment datagram to reach destination.

Question # 8 of 20

Routers use _____ to forward datagrams along prearranged path.

Select correct option:

Traffic class

Flow label

Destination address

none of the given

Routers use flow label to forward datagrams along prearranged path

Question # 9 of 20

_____ protocol uses three way handshake to begin a connection.

Select correct option:

UDP

TCP

IP

none of the given

Question # 10 of 20

Typical internet routing uses uses a combination of two metrics_____.

Select correct option:

routing metrics

administrative cost and routing metrics
hop cost

administrative cost and hop count

Question # 14 of 20

Network Address and Port Translation (NAPT) is by far the most popular form of

Select correct option:

Network Address Transmission

Network Address Translation

Network Address Transformation

None of the given

Question # 15 of 20

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

Select correct option:

Interior Gateway protocols(IGPs)

Exterior Gateway protocol (EGPs)

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

None of the given

It is used among routers within autonomous system. The destinations lie within IGP.

Question # 17 of 20

Interior Gateway Protocols (IGPs) and Exterior Gateway Protocols (EGPs) two broad classes of Internet Routing Protocol.

Select correct option:

True

False

Question # 18 of 20

The Network Layer Protocol ICMP stands for _____

Select correct option:

Instant Control Message Protocol

Internet Control Message Protocol

Initial Control Message Protocol

None of the given

Question # 19 of 20

The Current version of IP-Version 4 is _____ old

Select correct option:

18 years

20 years

22 years

none of given

TCP is a connectionless and reliable transport protocol.
Select correct option:

True
False

ATM header is about the _____ of the cell.

Select correct option:

15%
10% page 66
20%
5%

Jitter is significance for _____

Select correct option:

Voice
Video
Data

AI of above page 66

How many methods exist for building routing table?

Select correct option

1
2 pages
3 4

The process of forwarding the packets of information is called routing

The routing table contains information about the _____ immediately around it

Select correct option:

- Topology of the network
- **Destination page 58**
- Both of the above
- None of the above

Asynchronous Transfer Mode uses the concept of _____

Select correct option:

- Connection-less networking
- **Connection-oriented networking page 66**

Which of the following statement is true regarding ATM?

Select correct option:

- It is a single technology for voice, video and data
- It has low jitter and high capacity
- It uses fixed sized small cells. 48 octet's data
- **All of the above page 65**

A _____ can forward or block messages based on the information in the message itself

Select correct option

Message digest

Proxy firewall

• **Packet filter firewall not found in handouts**

• Private Key

You can use an IP packet filter firewall to create a set of rules that either discards or accepts traffic over a network connection. (Source to confirm

<http://publib.boulder.ibm.com/infocenter/powersys/v3r1m5/index.jsp?topic=/ipha5/packetfilterfirewall.htm>)

Transmission media are usually categorized as

Select correct option:

• **Guided or unguided**

Fixed or unfixed

Determinate or indeterminate

Metallic or nonmetallic

Which of the following is not a guided medium?

Select correct option:

Twisted-pair cable

Fiber-optic cable

• **Atmosphere**

Coaxial Cable

Which multiplexing technique transmits digital signals?

Select correct option:

WDM

FDM

• **TDM**

None of the above

All destinations on same switch have same _____

Select correct option:

Router

Information

• **Next Hop page 58**

None of the above

Which of the following statement is true regarding Distance-Vector Routing?

Select correct option:

It is very simple to implement.

• **Packet switch updates its own routing table first. Page 64**

It is used in RIP.

• All of the above

An exterior switch is one with which _____

Select correct option:

• **Computers are attached page 59**

No computer is attached

Hubs are attached externally None of the above

Frame relay is _____

Select correct option:

• **Connection oriented service page 64**

• Connectionless service It is typically ranges from 5Mbps to 1000Mbps. None of the above

An interior switch is one with which _____

Select correct option:

Computers are attached

• **No computer is attached page 59**

Computers are attached internally

None of the above

Which of the following is not a benefit of source independence?

Select correct option:

It allows fast and efficient routing.

• **Packet switch do not need to have complete information about all destinations**

Network functions even if topology changes

None of the above

Which of the following statement regarding ATM is true?

Select correct option:

Connections in ATM are called virtual channels

The VC is identified by a 24-bit value formed from the VPI

• **Both (a) and (b)**

None of the above

ATM header is about the ----- of the cell.

Select correct option:

15%

10%

20%

5%

How many methods exist for computing routing table?

Select correct option:

5

4

3

2

Which of the following statement is true regarding Distance-vector routing?

Select correct option:

It is very simple to implement.

• **Packet switch updates its own routing table first.**

It is used in RIP.

All of the above

Which one of the following is a property of static routing?

Select correct option:

It is inflexible

It is done at boot time

It has low network overload

All of the above

Asynchronous Transfer Mode uses the concept of -----.

Select correct option:

Connection-less networking

Connection-oriented networking

Which multiplexing technique shifts each signal to a different carrier frequency?

Select correct option:

TDM

FDM

Both a and b

None of the above

An interior switch is one with which

Select correct option:

Computers are attached

No computer is attached

Computers are attached internally

None of the above

LAN networks can not be extended to very large networks because of the limitations of.....

Select correct option:

Area

Distance

Routers

Technology

Which of the following statement is wrong regarding ATM?

Select correct option:

- It is a single technology for voice, video and data
- It has low jitter and high capacity.
- It uses fixed size, small cells, and 48 octet's data
- **None of the above**

Which one of the following is the responsibility of Djikstra' algorithm?

Select correct option:

To compute the shortest path between two nodes

To extract next hop information from path information

To insert next hop information into routing table

All of the above

Which one of the following is a property of dynamic routing?

Select correct option:

- It is inflexible
- It has low network overload
- **It can work around network failure**

All of the• above

Which of the following statement is true regarding ATM?

Select correct option:

ATM is a single technology that is designed to meet the goals of both LANs and WANs.

ATM uses the concept of connection-oriented networking.

Both (a) and (b)

None of the above

Source independence is a phenomena in which next hop to destination does not depend on the

Select correct option:

Source of packet

Destination of packet

No of hops

Source of protocol

If a computer on the network shares resources for others to use, it is called ____

a. Server

b. Client

c. Mainframe

Answer: a

2. Terminators are used in _____ topology.

a. Bus

b. Star

Answer: a

3. In _____ topology, if a computer's network cable is broken, whole network goes down.

a. Bus

b. Star

Answer: a

4. For large networks, _____ topology is used.

a. Bus

b. Star

c. Ring

Answer: b

5. ISO stands for

a. International Standard Organization

b. International Student Organization

c. Integrated Services Organization

Answer: a

6. ISO OSI model is used in

a. Stand alone PC

b. Network environment

Answer: b

7. Network cable lies on _____ layer

- a. Application
- b. Network
- c. Physical

Answer: c

8. ____ Layer decides which physical pathway the data should take.

- a. Application
- b. Network
- c. Physical

Answer: c

9. ISDN is an example of _____ network

- a. Circuit switched
- b. Packet switched

Answer: a

10. X.25 is an example of _____ network

- a. Circuit switched
- b. Packet switched

Answer: b

11. _____ allows LAN users to share computer programs and data.

- a. Communication server
- b. Print server
- c. File server

Answer: c

12. Print server uses _____ which is a buffer that holds data before it is send to the printer.

- a. Queue
- b. Spool
- c. Node

Answer: b

13. A standalone program that has been modified to work on a LAN by including concurrency controls such as file and record locking is an example of ____

- a LAN intrinsic software
- b. LAN aware software
- c. Groupware
- d. LAN ignorant software

Answer: a

14. The _____ portion of LAN management software restricts access, records user activities and audit data etc.

- a. Configuration management

- b. Security management
- c. Performance management

Answer : b

15. What is the max cable length of STP?

- a. 100 ft
- b. 200 ft
- c. 100 m
- d. 200 m

Answer : d

16. What is the max data capacity of STP?

- a. 10 mbps
- b. 100 mbps
- c. 1000 mbps
- d. 10000 mbps

Answer: b

17. Which connector STP uses?

- a. BNC
- b. RJ-11
- c. RJ-45
- d. RJ-69

Answer : c

18. What is the central device in star topology?

- a. STP server
- b. Hub/switch
- c. PDC
- d. Router

Answer : b

19. What is max data capacity for optical fiber cable?

- a. 10 mbps
- b. 100 mbps
- c. 1000 mbps
- d. 10000 mbps

Answer : c

In Direct point to point communication adding the Nth computer requires----- new connections.

► None of the given

► N2

▶ N-1

▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires N-1 new connections .(P# 23)

Question No: 2 (M a r k s : 1)

In Point-to-Point topology there are two topologies.

▶ Tree and Ring

▶ Star and Ring

▶ Star and Tree

▶ None of the given

POINT-TO-POINT:

In *Point-to-Point* topology there are two topologies.

1) STAR topology

2) TREE topology

Question No: 3 (M a r k s : 1)

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

▶ LAN

▶ WAN

▶ MAN

▶ None of the given

In LAN network occupies the smaller area like a room a floor or a building.(P# 4)

Hardware that calculates a CRC uses two simple components.

▶ AND unit and XOR unit

▶ Shift register and XOR unit

- ▶ Shift register and AND unit
- ▶ none of the given

CRC uses just two hardware components:

- Shift register
- Exclusive OR (XOR unit) .(P# 20)

Question No: 6 (M a r k s : 1) <http://vustudents.ning.com/>

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps
- ▶ 100 Mbps
- ▶ 1000 Mbps
- ▶ None of the given

Gigabit Ethernet that operates at 1 Gbps (1000 Mbps) over fiber optics and twisted pair Ethernet cables.

<http://vustudents.ning.com/>

formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ 10 Base T
- ▶ none of the given

10BASE-T:

This is another standard of wiring scheme. It is commonly called 10Base-T, Twisted Pair or TP Ethernet. (P# 43)

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ RJ-45, 10 Base T

▶ RJ-45, 10 Base 5

▶ BNC, 10 Base 2

▶ BNC, 10 Base T

A system with redundant bridges might have a problem with _____ in the system.

▶ Loop

▶ Filters

▶ Spanning Trees

▶ All given choices

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

▶ Greedy algorithm

▶ Distance vector algorithm

▶ Dijkstra's algorithm

▶ none of the given

Dijkstra's algorithm can accommodate weights on edges in graph. The shortest Path is then the path with lowest total weight (sum of the weight with all edges). It should be noted that the shortest path is not necessarily with fewest edges (or hops).

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ Connectionless service paradigm
- ▶ Connection-oriented service paradigm
- ▶ Both Connectionless and Connection-oriented service paradigm
- ▶ None of the given

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer.

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ 32-bit
- ▶ 24-bit
- ▶ None of the given

An Internet address (IP address) is a unique 32-bit binary number assigned to a Host and used for all communication with the host

the address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- ▶ Prefix, suffix
- ▶ suffix, prefix
- ▶ suffix, suffix
- ▶ none of the given

PREFIX:

It identifies the physical network to which the computers are attached.

SUFFIX:

It identifies an individual computer on the network.

_____ places the boundary between the first and second octets

- ▶ Class A
- ▶ Class B
- ▶ Class C
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

_____ places the boundary between the third and fourth octets.

- ▶ Class A
- ▶ Class B
- ▶ Class C
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the

boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ None of the given

FRAGMENTATION:

IP uses fragmentation i.e. datagram's can be split into pieces to fit in network with small MTU. Each fragment is an independent datagram. It includes all header fields. Bit in header indicates that the datagram is a fragment

_____ provides connectionless service.

- ▶ TCP
- ▶ UDP
- ▶ IP
- ▶ none of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ Transport

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection start-up and Graceful connection shutdown are the services provided by _____

- ▶ IP
- ▶ None of the given

▶ TCP

- ▶ UDP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- Connection-oriented service
- Point-to-point
- Complete reliability
- Full-duplex communication
- Stream interface
- Reliable connection start-up
- Graceful connection shutdown

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address
- ▶ Source port

▶ Destination Port

- ▶ None of the given

Field Destination Port identifies which application program on receiving computer should receive the data field source port identifies the application programs that sent the data.

Question No: 23 (M a r k s: 1)

_____ identifies the application program that sent the data.

- ▶ Destination Port
- ▶ Source port

- ▶ Logical address
- ▶ None of the given

Field Destination Port identifies which application program on receiving computer should receive the data While field source port identifies the application programs that sent the data. (Reference from E-books)

The Border Gateway Protocol (BGP) uses _____ for all communication

- ▶ UDP
- ▶ TCP

▶ Both UDP and TCP

▶ none of the given

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

_____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ RIP

▶ None of the given

ROUTING INFORMATION PROTOCOL (RIP):

It has the following characteristics:

"It is used for routing within an autonomous system (IGP).

"Hop Count Metric: RIP measures distance in network hops, where each network between the source and destination counts as a single hop.

"It uses UDP for all message transmissions.

"RIP is used over LAN. Version 1 of RIP uses hardware broadcast and version 2 allows Delivery via multicast.

"It can be used to advertise default route propagation. An organization can use RIP to Install a default route in each router.

"It uses distance vector algorithm.

ICMP message transport is acted upon by getting ICMP encrypted in IP.

▶ True

▶ False

ICMP message transport is acted upon by getting ICMP encapsulated in IP (P# 117)

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ software
- ▶ operating system
- ▶ internet

Protocol addresses are abstractions provided by software (reference)

These packets serve same purpose on _____ as frames on _____

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ Internet, LAN

VIRTUAL PACKETS:

These packets serve same purpose in Internet as frames on LAN

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ False

Address mask defines how many bits of address are in prefix. Prefix defines how much of address used to identify network.

a single networking technology is best for all needs.

▶ True

▶ False

There is no single networking technology that is best for all needs

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ True

▶ False

the chief problems with multiple networks are as follows:

- A computer attached to a given network can only communicate with other Computers attached to the same network.

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ Itself

▶ prefix

▶ suffix

▶ mask

Classful IP addresses are self-identifying because the class of the address can be computed from the address itself

Find the class of the address.

10100111 11011011 10001011 01101111

▶ A

▶ B

▶ E

▶ C

Reference table handouts P # 87

Find the class of the address:

11110011 10011011 11111011 00001111

▶ A

▶ C

▶ E

▶ B

Reference table handouts P # 87

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

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

▶ T

▶ D

▶ C

▶ T, C

Reference table handouts P # 97

Which method of Address Resolution Protocol requires hardware broadcast?

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

▶ D

- ▶ T
- ▶ C
- ▶ T, D

Reference table handouts P # 97

Which method of Address Resolution Protocol resolution with minimum delay? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T, D
- ▶ c
- ▶ T
- ▶ T, C

Reference table handouts P # 97

In which method of Address Resolution Protocol the implimentation is more difficult? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T, C
- ▶ T
- ▶ C
- ▶ D

Reference table handouts P # 97://vuzs.net

On of the design goals for unicast route propagation is _____.

- ▶ Consistency
- ▶ inconsistency

▶ stability

▶ dynamic addressing

On of the design goals for unicast route propagation is stability—continual changes in route are undesirable because they lead to higher jitter and datagram arriving out of order. Thus, once a unicast routing protocol finds a shortest path, it usually retains the route until a failure makes the path unusable. (Reference from E-book)

Propagation multicast routing information differs dramatically from unicast route propagation?

▶ True

▶ False

Propagating multicast routing information differs dramatically from unicast route propagation. The difference arises because internet multicast allows dynamic group membership and autonomous senders
<http://vustudents.ning.com/>

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

▶ True

▶ False

To save traffic, an EGP summarize routing information from the autonomous system before passing it to another autonomous system. More important an EGP implements policy constraint that allows a system manager to determine exactly what information is released outside the organization. (Reference from E-book)

In IPv6 the type of address used for collection of computers with same prefix. Are known as_____.

▶ Anycast

- ▶ Unicast
- ▶ Multicast
- ▶ Non of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

Special types of addresses in IPv6 used for multiple destinations; possibly not same site. Are known as_____

- ▶ Unicast
- ▶ Anycast
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Unicast: It is used for single destination computer.

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Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- ▶ True
- ▶ False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

- *Applications can depend on protocol to preserve data boundaries.*

Reliability is the responsibility of the _____ layer

- ▶ Network
- ▶ Data link
- ▶ **Transport**
- ▶ Application

Reliability is the responsibility of the Transport layer

TCP uses _____ mechanism to control the flow of data.

- ▶ door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

**In Direct point to point communication adding the Nth computer requires-----
new connections.**

- ▶ None of the given
- ▶ N^2
- ▶ **$N-1$**
- ▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires $N-1$ new connections .(P# 23)

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ Star and Tree
- ▶ None of the given

POINT-TO-POINT:

In *Point-to-Point* topology there are two topologies.

- 1) STAR topology
- 2) TREE topology

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

- ▶ LAN
- ▶ WAN
- ▶ MAN
- ▶ None of the given

In LAN network occupies the smaller area like a room a floor or a building.(P# 4)

Hardware that calculates a CRC uses two simple components.

- ▶ AND unit and XOR unit
- ▶ Shift register and XOR unit
- ▶ Shift register and ANDunit
- ▶ none of the given

CRC uses just two hardware components:

- Shift register
- Exclusive OR (XOR unit) .(P# 20)

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps
- ▶ 100 Mbps
- ▶ 1000 Mbps
- ▶ None of the given

Gigabit Ethernet that operates at 1 Gbps (1000 Mbps) over fiber optics and twisted pair Ethernet cables.

formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

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- ▶ 10 Base 5
- ▶ 10 Base T
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10BASE-T:

This is another standard of wiring scheme. It is commonly called 10Base-T, Twisted Pair or TP Ethernet. (P# 43)

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- ▶ RJ-45, 10 Base T
- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

A system with redundant bridges might have a problem with _____ in the system.

▶ Loop

▶ Filters

▶ Spanning Trees

▶ All given choices

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

▶ Greedy algorithm

▶ Distance vector algorithm

▶ Dijkstra's algorithm

▶ none of the given

Dijkstra's algorithm can accommodate weights on edges in graph. The shortest Path is then the path with lowest total weight (sum of the weight with all edges). It should Be noted that the shortest path is not necessarily with fewest edges (or hops).

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

▶ Connectionless service paradigm

▶ Connection-oriented service paradigm

▶ Both Connectionless and Connection-oriented service paradigm

▶ none of the given

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer.

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ 32-bit
- ▶ 24-bit
- ▶ None of the given

An Internet address (IP address) is a unique 32-bit binary number assigned to a host and used for all communication with the host

The address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- ▶ prefix , suffix
- ▶ suffix , prefix
- ▶ suffix , suffix
- ▶ None of the given

PREFIX:

It identifies the physical network to which the computers are attached.

SUFFIX:

It identifies an individual computer on the network.

_____ places the boundary between the first and second octets

▶ Class A

▶ Class B

▶ Class C

▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

_____ places the boundary between the third and fourth octets.

▶ Class A

▶ Class B

▶ Class C

▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ None of the given

FRAGMENTATION:

_____ provides connectionless service.

- ▶ TCP
- ▶ UDP
- ▶ IP
- ▶ none of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

UDP and TCP are both_____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network

▶ Transport

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

- ▶ IP
- ▶ None of the given

▶ TCP

- ▶ UDP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- Connection-oriented service
- Point-to-point
- Complete reliability
- Full-duplex communication
- Stream interface
- Reliable connection start-up
- Graceful connection shutdown

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer

_____ identifies which application program on receiving computer should receive

the data

- ▶ Logical address
- ▶ Source port
- ▶ Destination Port
- ▶ None of the given

_____ identifies the application program that sent the data.

- ▶ Destination Port
- ▶ Source port
- ▶ Logical address
- ▶ None of the given

The Border Gateway Protocol (BGP) uses _____ for all communication

- ▶ UDP
- ▶ TCP
- ▶ Both UDP and TCP
- ▶ None of the given

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

.

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

ROUTING INFORMATION PROTOCOL (RIP):

It has the following characteristics:

"It is used for routing within an autonomous system (IGP).

"Hop Count Metric: RIP measures distance in network hops, where each network between the source and destination counts as a single hop.

"It uses UDP for all message transmissions.

"RIP is used over LAN. Version 1 of RIP uses hardware broadcast and version 2 allows delivery via multicast.

"It can be used to advertise default route propagation. An organization can use RIP to install a default route in each router.

"It uses distance vector algorithm.

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- ▶ **True**
- ▶ False

ICMP message transport is acted upon by getting ICMP encapsulated in IP (P# 117)

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ software
- ▶ operating system
- ▶ internet

Protocol addresses are abstractions provided by software

These packets serve same purpose on _____ as frames on _____

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ Internet, LAN

VIRTUAL PACKETS:

These packets serve same purpose in Internet as frames on LAN

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ False

Address mask defines how many bits of address are in prefix. Prefix defines how much of address used to identify network.

A single networking technology is best for all needs.

- ▶ True

▶ False

There is no single networking technology that is best for all needs

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ True

▶ False

the chief problems with multiple networks are as follows:

- A computer attached to a given network can only communicate with other Computers attached to the same network.

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ Itself

▶ prefix

▶ suffix

▶ mask

Classful IP addresses are self-identifying because the class of the address can be computed from the address itself

Find the class of the address.

10100111 11011011 10001011 01101111

▶ A

▶ B

▶ E

▶ C

Reference table handouts P # 87

Find the class of the address:

11110011 10011011 11111011 00001111

▶ A

▶ C

▶ E

▶ B

[Reference table handouts P # 87](#)

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

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

▶ T

▶ D

▶ C

▶ T, C

[Reference table handouts P # 97](#)

Which method of Address Resolution Protocol requires hardware broadcast?

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

▶ D

▶ T

▶ C

▶ T, D

Reference table handouts P # 97

**Which method of Address Resolution Protocol resolution with minimum delay?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?**

▶ T, D

▶ c

▶ T

▶ T, C

Reference table handouts P # 97

**In which method of Address Resolution Protocol the implementation is more difficult?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?**

▶ T, C

▶ T

▶ C

▶ D

Reference table handouts P # 97

On of the design goals for unicast route propagation is _____.

▶ Consistency

▶ inconsistency

▶ stability

▶ dynamic addressing

On of the design goals for unicast route propagation is stability—continual changes in route are undesirable because they lead to higher jitter and datagram arriving out of order. Thus, once a unicast routing protocol finds a shortest path, it usually retains the route until a failure makes the path unusable. (Reference from E-book)

Propagation multicast routing information differs dramatically from unicast route propagation?

▶ True

▶ False

Propagating multicast routing information differs dramatically from unicast route propagation. The difference arises because internet multicast allows dynamic group membership and autonomous senders

to save traffic an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

▶ True

▶ False

to save traffic, an EGP summarize routing information from the autonomous system before passing it to another autonomous system. More important an EGP implements policy constraint that allows a system manager to determine exactly what information is released outside the organization. (Reference from E-book)

In IPv6 the type of address used for collection of computers with same prefix. Are known as _____

▶ Anycast

▶ Unicast

▶ Multicast

▶ none of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

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Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. _____.

- ▶ Unicast
- ▶ Anycast
- ▶ Multicast
- ▶ none of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- ▶ True
- ▶ False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

- Applications can depend on protocol to preserve data boundaries.

Reliability is the responsibility of the _____ layer

- ▶ Network
- ▶ Data link
- ▶ **Transport**
- ▶ Application

Reliability is the responsibility of the Transport layer

TCP uses _____ mechanism to control the flow of data.

- ▶ Door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

TCP uses window mechanism to control the flow of data.

the time for acknowledgement to arrival of packet depends on.

- ▶ **Distance to destination and Current traffic conditions**
- ▶ Current traffic conditions
- ▶ Distance to destination
- ▶ non of these

The time for acknowledgement to arrive depends on:

- *Distance to destination*
- *Current traffic conditions*

FDDI can transmits data at a rate of -----

▶ 100 million bits per second

▶ 10 million bits per second

▶ 1000 million bits per second

▶ None of the given

the time for acknowledgement to arrival of packet depends on.

▶ Distance to destination and Current traffic conditions

▶ Current traffic conditions

▶ Distance to destination

▶ non of these

The time for acknowledgement to arrive depends on:

• *Distance to destination*

• *Current traffic conditions*

FDDI can transmits data at a rate of -----

▶ 100 million bits per second

▶ 10 million bits per second

▶ 1000 million bits per second

▶ None of the given

[CS 610 Solved \(Correct\) MCQS \(References are given in Blue Font\)](#) [UMAIR SID](#)

The protocol address of the next hop must be _____ to an equivalent hardware address before a packet can be sent.

- Encrypted
- Decrypted
- Translated**
- Non of these

A _____ address-binding table is used for each physical network.

- New
- Similar
- Separate**
- Old

UDP provides connection-oriented service.

- True
- False**

TCP provides connection oriented reliable data streaming service, whereas UDP provides connection-less unreliable messaging service.

The UDP stands for_____.

- Universal Datagram Protocol
- User Datagram Protocol**
- United Datagram Protocol
- None of the given

In 3-way handshake TCP requires to generate a random _____ sequence number.

- 30 bit
- 32 bit**
- 34 bit
- none of the given

TCP stands for _____

- Transport control protocol
- Transmission control protocol**
- Terminal control protocol
- None of the given

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of three possible sizes.

Select correct option:

- True**

False

Question # 4 of 20 (Start time: 06:44:07 PM)

Total Marks: 1

Twice NAT allows a site to run servers.

Select correct option:

True

False

Preliminary version of IP was called _____.

Select correct option:

IP - New Generation (IPng)

IP - Next Generation (IPng)

IP - Net Generation (IPng)

None of the given

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of two possible sizes.

Select correct option:

True

False

_____ uses window mechanism to control the flow of data.

Select correct option:

IP

UDP

TCP

none of the given

TCP uses window mechanism to control the flow of data.

The Internet service providers coordinate with the Internet assigned number authority to obtain their network numbers.

Select correct option:

True

False

Which protocol is used to test different tools.

Select correct option:

ICMP

IGMP

TCP/IP

none of the given

USING ICMP TO TEST REACHABILITY:

ICMP can also be used to test different tools. An Internet host A, is reachable from another host B, if datagram's can be delivered from A to B. Ping program tests reachability. It sends datagram from B to A, that echoes back to B. it uses ICMP echo request and echo reply messages. Internet layer includes code to reply to incoming ICMP echo request messages.

_____ identifies the application program that sent the data.

Select correct option:

Destination Port

Source port

Logical address

None of the given

The Source can configure outgoing datagram's to avoid _____

Select correct option:

Segmentation

Defragmentation

Fragmentation

None of the given

Fragmentation should be avoided. Source can configure outgoing datagrams to avoid fragmentation. Source determines path MTU- smallest network MTU on path from source to destination.

Question # 18 of 20 (Start time: 06:57:12 PM)

Total M a r k s : 1

The time for acknowledgement to arrive depends on _____

Select correct option:

Distance to destination

Current traffic conditions

Both a and b

None of the given

The time for acknowledgement to arrive depends on:

- Distance to destination
- Current traffic conditions

which is not the type of error messages defined by ICMP.

Select correct option:

Source quench

Time exceeded

Destination unreachable

None of the given

ERROR MESSAGES:

These are as follows:

- Source quench
- Time exceeded
- Destination unreachable
- Redirect
- Fragmentation required

_____ is used to attach two autonomous systems.

Select correct option:

BGP

IGP

EGP

none of the given

Question # 2 of 20

Due to revolutionalization of IP-V6 the speed has increased from _____

Select correct option:

56kbps to 512kbps

512kbps to 1gbps

56kbps to 1gbps

none of the given

Scale is also dramatically changed. Size from a few tens to a few tens of millions
Of computers has been revolutionized. Speed has increased from 56Kbps to 1Gbps. Also

There is an increased frame size in hardware

Question # 3 of 20

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

Select correct option:

True

False

COMPUTING THE CLASS OF AN ADDRESS:

Whenever it handles a packet, IP software needs to separate the destination
Address into a prefix and suffix.

Question # 4 of 20

TTL stands for _____

Select correct option:

Time to Learn

Time to Leave

Time to Live

none of the given

Question # 5 of 20

IGPs stand for _____

Select correct option:

Internal Gateway Protocols

Interior Gateway Protocols

Intermediate Gateway Protocols

None of the given

Question # 6 of 20

_____ identifies which application program on receiving computer should
receive the data

Select correct option:

Logical address

Source port

Destination Port

None of the given

Field Destination Port identifies which application program on receiving computer should receive the data. While field source port identifies the application programs that sent the data.

Question # 7 of 20

_____ encapsulates IP datagram as data area in hardware frame.

Select correct option:

Network Interface Layer

Datalink Layer

Network Layer

None of the given

The network interface layer encapsulates an entire datagram in the data area of a hardware frame

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Question # 8 of 20

Class A mask is 255.0.0.0 which is used for _____

Select correct option:

Unicasting

Multicasting

Subnetting

All of the given

class A mask is 255.0.0.0 which is used for subnetting.

Question # 9 of 20

NAT is not useful at a residence with Cable Modem or DSL connectivity.

Select correct option:

True

False

Question # 10 of 20

Autonomous System chooses a routing protocol to exchange routing information which is passed before being summarized to another group.

Select correct option:

True

False

Question # 11 of 20

_____ layer Provides reliable delivery of datagram.

Select correct option:

Network

Transport

Datalink

none of the given

Transport layer provides reliable delivery. Network layer – IP – can detect and report errors without actually fixing them. It focuses on datagram delivery. Application

layer is not interested in differentiating among delivery problems at intermediate routers

Question # 12 of 20

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

Select correct option:

Encapsulation

Reassembling

Routing or forwarding

None of the given

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

Question # 13 of 20

The process of learning the path MTU is known as path MTU discovery.

Select correct option:

True

False

The process of learning the path MTU is known as path MTU discovery.

Question # 14 of 20

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of _____ possible sizes.

Select correct option:

three

two

four

five

Three

As the Internet grew, the original Classful addressing scheme became a limitation.

The IP address space was being exhausted because all networks had to choose one of Three possible sizes. Many addresses were unused.

Two new mechanisms were invented to overcome the limitations, which are as

Follows:

- Subnet addressing
- Classless addressing

Question # 15 of 20

End to End delivery Service of IP datagram is _____

Select correct option:

Connection oriented

Connectionless

both a and b

none of the given

Question # 16 of 20

EGP stands for _____

Select correct option:

Extension Gateway Protocol

Exterior Gateway Protocol

Explicit Gateway Protocol

none of the given

Question # 17 of 20

Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string.

Select correct option:

True

False

Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string. Hashing is used to index and retrieve items in a database because it is faster to find the item using the shorter hashed key than to find it using the original value. It is also used in many encryption algorithms.

Question # 18 of 20

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a _____ Ethernet address.

Select correct option:

16-bit

48-bit

64-bit

128-bit

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question # 19 of 20

Reliability is not the responsibility of the Transport layer.

Select correct option:

True

False

Reliability is the responsibility of the Transport layer. In TCP/IP, TCP provides reliable transport service. Most Internet applications use TCP as no other protocol has proved to work better.

Question # 20 of 20

IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

Select correct option:

<http://vustudents.ning.com//>

96

100

120

none of the given

IPv6 address with 96 leading zeros is interpreted to hold an IPv4 address **Question # 1 of 20**

NAT software does not allow a PC to connect with the Internet and act as a NAT device at the same time.

Select correct option:

True

False

Question # 2 of 20

TCP uses the term segment to refer to a _____.

Select correct option:

packet

message

both (a) and (b)

None of the given

both a and b?

TCP uses single format for all messages. TCP uses the term segment to refer to a message. Each message sent from TCP on one machine to TCP on another machine uses this format including data and acknowledgement.

Question # 3 of 20

The Universal Datagram Protocol is a message-oriented protocol.

Select correct option:

True

False

UDP has the following characteristics.

- It is an end-to-end protocol. It provides application-to-application communication.
- It provides connectionless service.
- It is a Message-Oriented protocol.
- It uses best-effort delivery service.
- It follows arbitrary interaction.
- It is operating system independent

Question # 4 of 20

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

Select correct option:

FLAGS

FLAGMENT OFFSET

IDENTIFICATION

None of the given

The FRAGMENT OFFSET field tells a receiver how to order fragments within a given datagram

Question # 5 of 20

IP datagram can contains _____ octets.

Select correct option:

0-65,535

1-65,535

1-65,536

none of the given

Datagrams can have different sizes i.e.

Header area is usually fixed (20 octets) but can have options. Data area can contain between 1 octet and 65.535 octets (216-1).

Usually, data area is much larger than header.

Question # 6 of 20

The amount of buffer space available at any time is called the window.

Select correct option:

True

False

Question # 7 of 20

_____ Source is responsible for fragmentation.

Select correct option:

IPV4

IPV6

IPv6 source (not intermediate routers) is responsible for fragmentation. Routers simply drop datagrams larger than network MTU (Maximum Transmission Unit). So source must fragment datagram to reach destination.

Question # 8 of 20

Routers use _____ to forward datagrams along prearranged path.

Select correct option:

Traffic class

Flow label

Destination address

none of the given

Routers use flow label to forward datagrams along prearranged path

Question # 9 of 20

_____ protocol uses three way handshake to begin a connection.

Select correct option:

UDP

TCP

IP

none of the given

Question # 10 of 20

Typical internet routing uses uses a combination of two metrics_____.

Select correct option:

routing metrics

administrative cost and routing metrics
hop cost

administrative cost and hop count

Question # 14 of 20

Network Address and Port Translation (NAPT) is by far the most popular form of

Select correct option:

Network Address Transmission

Network Address Translation

Network Address Transformation

None of the given

Question # 15 of 20

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

Select correct option:

Interior Gateway protocols(IGPs)

Exterior Gateway protocol (EGPs)

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

None of the given

It is used among routers within autonomous system. The destinations lie within IGP.

Question # 17 of 20

Interior Gateway Protocols (IGPs) and Exterior Gateway Protocols (EGPs) two broad classes of Internet Routing Protocol.

Select correct option:

True

False

Question # 18 of 20

The Network Layer Protocol ICMP stands for _____

Select correct option:

Instant Control Message Protocol

Internet Control Message Protocol

Initial Control Message Protocol

None of the given

Question # 19 of 20

The Current version of IP-Version 4 is _____ old

Select correct option:

18 years

20 years

22 years

none of given

TCP is a connectionless and reliable transport protocol.
Select correct option:

True

False

ATM header is about the _____ of the cell.

Select correct option:

15%

10% page 66

20%

5%

Jitter is significance for _____

Select correct option:

Voice

Video

Data

AI of above page 66

How many methods exist for building routing table?

Select correct option

1

2 pages

3 4

The process of forwarding the packets of information is called routing

The routing table contains information about the _____ immediately around it

Select correct option:

- Topology of the network
- **Destination page 58**
- Both of the above
- None of the above

Asynchronous Transfer Mode uses the concept of _____

Select correct option:

Connection-less networking

- **Connection-oriented networking page 66**

Which of the following statement is true regarding ATM?

Select correct option:

- It is a single technology for voice, video and data
- It has low jitter and high capacity
- It uses fixed sized small cells. 48 octet's data
- **All of the above page 65**

A _____ can forward or block messages based on the information in the message itself

Select correct option

Message digest

Proxy firewall

• **Packet filter firewall not found in handouts**

• Private Key

You can use an IP packet filter firewall to create a set of rules that either discards or accepts traffic over a network connection. (Source to confirm

<http://publib.boulder.ibm.com/infocenter/powersys/v3r1m5/index.jsp?topic=/ipha5/packetfilterfirewall.htm>)

Transmission media are usually categorized as

Select correct option:

• **Guided or unguided**

Fixed or unfixed

Determinate or indeterminate

Metallic or nonmetallic

Which of the following is not a guided medium?

Select correct option:

Twisted-pair cable

Fiber-optic cable

• **Atmosphere**

Coaxial Cable

Which multiplexing technique transmits digital signals?

Select correct option:

WDM

FDM

• **TDM**

None of the above

All destinations on same switch have same _____

Select correct option:

Router

Information

• **Next Hop page 58**

None of the above

Which of the following statement is true regarding Distance-Vector Routing?

Select correct option:

It is very simple to implement.

• **Packet switch updates its own routing table first. Page 64**

It is used in RIP.

• All of the above

An exterior switch is one with which _____

Select correct option:

• **Computers are attached page 59**

No computer is attached

Hubs are attached externally None of the above

Frame relay is _____

Select correct option:

• **Connection oriented service page 64**

• Connectionless service It is typically ranges from 5Mbps to 1000Mbps. None of the above

An interior switch is one with which _____

Select correct option:

Computers are attached

• **No computer is attached page 59**

Computers are attached internally

None of the above

Which of the following is not a benefit of source independence?

Select correct option:

It allows fast and efficient routing.

• **Packet switch do not need to have complete information about all destinations**

Network functions even if topology changes

None of the above

Which of the following statement regarding ATM is true?

Select correct option:

Connections in ATM are called virtual channels

The VC is identified by a 24-bit value formed from the VPI

• **Both (a) and (b)**

None of the above

ATM header is about the ----- of the cell.

Select correct option:

15%

10%

20%

5%

How many methods exist for computing routing table?

Select correct option:

5

4

3

2

Which of the following statement is true regarding Distance-vector routing?

Select correct option:

It is very simple to implement.

• **Packet switch updates its own routing table first.**

It is used in RIP.

All of the above

Which one of the following is a property of static routing?

Select correct option:

It is inflexible

It is done at boot time

It has low network overload

All of the above

Asynchronous Transfer Mode uses the concept of -----.

Select correct option:

Connection-less networking

Connection-oriented networking

Which multiplexing technique shifts each signal to a different carrier frequency?

Select correct option:

TDM

FDM

Both a and b

None of the above

An interior switch is one with which

Select correct option:

Computers are attached

No computer is attached

Computers are attached internally

None of the above

LAN networks can not be extended to very large networks because of the limitations of.....

Select correct option:

Area

Distance

Routers

Technology

Which of the following statement is wrong regarding ATM?

Select correct option:

- It is a single technology for voice, video and data
- It has low jitter and high capacity.
- It uses fixed size, small cells, and 48 octet's data
- **None of the above**

Which one of the following is the responsibility of Djikstra' algorithm?

Select correct option:

To compute the shortest path between two nodes

To extract next hop information from path information

To insert next hop information into routing table

All of the above

Which one of the following is a property of dynamic routing?

Select correct option:

- It is inflexible
- It has low network overload
- **It can work around network failure**

All of the• above

Which of the following statement is true regarding ATM?

Select correct option:

ATM is a single technology that is designed to meet the goals of both LANs and WANs.

ATM uses the concept of connection-oriented networking.

Both (a) and (b)

None of the above

Source independence is a phenomena in which next hop to destination does not depend on the

Select correct option:

Source of packet

Destination of packet

No of hops

Source of protocol

If a computer on the network shares resources for others to use, it is called ____

a. Server

b. Client

c. Mainframe

Answer: a

2. Terminators are used in _____ topology.

a. Bus

b. Star

Answer: a

3. In _____ topology, if a computer's network cable is broken, whole network goes down.

a. Bus

b. Star

Answer: a

4. For large networks, _____ topology is used.

a. Bus

b. Star

c. Ring

Answer: b

5. ISO stands for

a. International Standard Organization

b. International Student Organization

c. Integrated Services Organization

Answer: a

6. ISO OSI model is used in

a. Stand alone PC

b. Network environment

Answer: b

7. Network cable lies on _____ layer

- a. Application
- b. Network
- c. Physical

Answer: c

8. ____ Layer decides which physical pathway the data should take.

- a. Application
- b. Network
- c. Physical

Answer: c

9. ISDN is an example of _____ network

- a. Circuit switched
- b. Packet switched

Answer: a

10. X.25 is an example of _____ network

- a. Circuit switched
- b. Packet switched

Answer: b

11. _____ allows LAN users to share computer programs and data.

- a. Communication server
- b. Print server
- c. File server

Answer: c

12. Print server uses _____ which is a buffer that holds data before it is send to the printer.

- a. Queue
- b. Spool
- c. Node

Answer: b

13. A standalone program that has been modified to work on a LAN by including concurrency controls such as file and record locking is an example of ____

- a LAN intrinsic software
- b. LAN aware software
- c. Groupware
- d. LAN ignorant software

Answer: a

14. The _____ portion of LAN management software restricts access, records user activities and audit data etc.

- a. Configuration management

- b. Security management
- c. Performance management

Answer : b

15. What is the max cable length of STP?

- a. 100 ft
- b. 200 ft
- c. 100 m
- d. 200 m

Answer : d

16. What is the max data capacity of STP?

- a. 10 mbps
- b. 100 mbps
- c. 1000 mbps
- d. 10000 mbps

Answer: b

17. Which connector STP uses?

- a. BNC
- b. RJ-11
- c. RJ-45
- d. RJ-69

Answer : c

18. What is the central device in star topology?

- a. STP server
- b. Hub/switch
- c. PDC
- d. Router

Answer : b

19. What is max data capacity for optical fiber cable?

- a. 10 mbps
- b. 100 mbps
- c. 1000 mbps
- d. 10000 mbps

Answer : c

In Direct point to point communication adding the Nth computer requires----- new connections.

► None of the given

► N2

▶ N-1

▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires N-1 new connections .(P# 23)

Question No: 2 (M a r k s : 1)

In Point-to-Point topology there are two topologies.

▶ Tree and Ring

▶ Star and Ring

▶ Star and Tree

▶ None of the given

POINT-TO-POINT:

In *Point-to-Point* topology there are two topologies.

1) STAR topology

2) TREE topology

Question No: 3 (M a r k s : 1)

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

▶ LAN

▶ WAN

▶ MAN

▶ None of the given

In LAN network occupies the smaller area like a room a floor or a building.(P# 4)

Hardware that calculates a CRC uses two simple components.

▶ AND unit and XOR unit

▶ Shift register and XOR unit

- ▶ Shift register and AND unit
- ▶ none of the given

CRC uses just two hardware components:

- Shift register
- Exclusive OR (XOR unit) .(P# 20)

Question No: 6 (M a r k s : 1) <http://vustudents.ning.com/>

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps
- ▶ 100 Mbps
- ▶ 1000 Mbps
- ▶ None of the given

Gigabit Ethernet that operates at 1 Gbps (1000 Mbps) over fiber optics and twisted pair Ethernet cables.

<http://vustudents.ning.com/>

formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ 10 Base T
- ▶ none of the given

10BASE-T:

This is another standard of wiring scheme. It is commonly called 10Base-T, Twisted Pair or TP Ethernet. (P# 43)

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ RJ-45, 10 Base T

▶ RJ-45, 10 Base 5

▶ BNC, 10 Base 2

▶ BNC, 10 Base T

A system with redundant bridges might have a problem with _____ in the system.

▶ Loop

▶ Filters

▶ Spanning Trees

▶ All given choices

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

▶ Greedy algorithm

▶ Distance vector algorithm

▶ Dijkstra's algorithm

▶ none of the given

Dijkstra's algorithm can accommodate weights on edges in graph. The shortest Path is then the path with lowest total weight (sum of the weight with all edges). It should be noted that the shortest path is not necessarily with fewest edges (or hops).

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ Connectionless service paradigm
- ▶ Connection-oriented service paradigm
- ▶ Both Connectionless and Connection-oriented service paradigm
- ▶ None of the given

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer.

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ 32-bit
- ▶ 24-bit
- ▶ None of the given

An Internet address (IP address) is a unique 32-bit binary number assigned to a Host and used for all communication with the host

the address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- ▶ Prefix, suffix
- ▶ suffix, prefix
- ▶ suffix, suffix
- ▶ none of the given

PREFIX:

It identifies the physical network to which the computers are attached.

SUFFIX:

It identifies an individual computer on the network.

_____ places the boundary between the first and second octets

- ▶ Class A
- ▶ Class B
- ▶ Class C
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

_____ places the boundary between the third and fourth octets.

- ▶ Class A
- ▶ Class B
- ▶ Class C
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the

boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ None of the given

FRAGMENTATION:

IP uses fragmentation i.e. datagram's can be split into pieces to fit in network with small MTU. Each fragment is an independent datagram. It includes all header fields. Bit in header indicates that the datagram is a fragment

_____ provides connectionless service.

- ▶ TCP
- ▶ UDP
- ▶ IP
- ▶ none of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport**

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection start-up and Graceful connection shutdown are the services provided by _____

- ▶ IP
- ▶ None of the given

▶ **TCP**

- ▶ UDP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- Connection-oriented service
- Point-to-point
- Complete reliability
- Full-duplex communication
- Stream interface
- Reliable connection start-up
- Graceful connection shutdown

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address
- ▶ Source port

▶ Destination Port

- ▶ None of the given

Field Destination Port identifies which application program on receiving computer should receive the data field source port identifies the application programs that sent the data.

Question No: 23 (M a r k s: 1)

_____ identifies the application program that sent the data.

- ▶ Destination Port
- ▶ Source port

- ▶ Logical address
- ▶ None of the given

Field Destination Port identifies which application program on receiving computer should receive the data While field source port identifies the application programs that sent the data. (Reference from E-books)

The Border Gateway Protocol (BGP) uses _____ for all communication

- ▶ UDP
- ▶ TCP

▶ Both UDP and TCP

▶ none of the given

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

_____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ RIP

▶ None of the given

ROUTING INFORMATION PROTOCOL (RIP):

It has the following characteristics:

"It is used for routing within an autonomous system (IGP).

"Hop Count Metric: RIP measures distance in network hops, where each network between the source and destination counts as a single hop.

"It uses UDP for all message transmissions.

"RIP is used over LAN. Version 1 of RIP uses hardware broadcast and version 2 allows Delivery via multicast.

"It can be used to advertise default route propagation. An organization can use RIP to Install a default route in each router.

"It uses distance vector algorithm.

ICMP message transport is acted upon by getting ICMP encrypted in IP.

▶ True

▶ False

ICMP message transport is acted upon by getting ICMP encapsulated in IP (P# 117)

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ software
- ▶ operating system
- ▶ internet

Protocol addresses are abstractions provided by software (reference)

These packets serve same purpose on _____ as frames on _____

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ Internet, LAN

VIRTUAL PACKETS:

These packets serve same purpose in Internet as frames on LAN

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ False

Address mask defines how many bits of address are in prefix. Prefix defines how much of address used to identify network.

a single networking technology is best for all needs.

▶ True

▶ False

There is no single networking technology that is best for all needs

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ True

▶ False

the chief problems with multiple networks are as follows:

- A computer attached to a given network can only communicate with other Computers attached to the same network.

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ Itself

▶ prefix

▶ suffix

▶ mask

Classful IP addresses are self-identifying because the class of the address can be computed from the address itself

Find the class of the address.

10100111 11011011 10001011 01101111

▶ A

▶ B

▶ E

▶ C

Reference table handouts P # 87

Find the class of the address:

11110011 10011011 11111011 00001111

▶ A

▶ C

▶ E

▶ B

Reference table handouts P # 87

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

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

▶ T

▶ D

▶ C

▶ T, C

Reference table handouts P # 97

Which method of Address Resolution Protocol requires hardware broadcast?

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

▶ D

- ▶ T
- ▶ C
- ▶ T, D

Reference table handouts P # 97

Which method of Address Resolution Protocol resolution with minimum delay? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T, D
- ▶ c
- ▶ T
- ▶ T, C

Reference table handouts P # 97

In which method of Address Resolution Protocol the implimentation is more difficult? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T, C
- ▶ T
- ▶ C
- ▶ D

Reference table handouts P # 97://vuzs.net

On of the design goals for unicast route propagation is _____.

- ▶ Consistency
- ▶ inconsistency

▶ stability

▶ dynamic addressing

On of the design goals for unicast route propagation is stability—continual changes in route are undesirable because they lead to higher jitter and datagram arriving out of order. Thus, once a unicast routing protocol finds a shortest path, it usually retains the route until a failure makes the path unusable. (Reference from E-book)

Propagation multicast routing information differs dramatically from unicast route propagation?

▶ True

▶ False

Propagating multicast routing information differs dramatically from unicast route propagation. The difference arises because internet multicast allows dynamic group membership and autonomous senders
<http://vustudents.ning.com/>

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

▶ True

▶ False

To save traffic, an EGP summarize routing information from the autonomous system before passing it to another autonomous system. More important an EGP implements policy constraint that allows a system manager to determine exactly what information is released outside the organization. (Reference from E-book)

In IPv6 the type of address used for collection of computers with same prefix. Are known as_____.

▶ Anycast

- ▶ Unicast
- ▶ Multicast
- ▶ Non of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

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Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- ▶ True
- ▶ False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

- *Applications can depend on protocol to preserve data boundaries.*

Reliability is the responsibility of the _____ layer

- ▶ Network
- ▶ Data link
- ▶ **Transport**
- ▶ Application

Reliability is the responsibility of the Transport layer

TCP uses _____ mechanism to control the flow of data.

- ▶ door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

**In Direct point to point communication adding the Nth computer requires-----
new connections.**

- ▶ None of the given
- ▶ N^2
- ▶ **$N-1$**
- ▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires $N-1$ new connections .(P# 23)

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ Star and Tree
- ▶ None of the given

POINT-TO-POINT:

In *Point-to-Point* topology there are two topologies.

- 1) STAR topology
- 2) TREE topology

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

- ▶ LAN
- ▶ WAN
- ▶ MAN
- ▶ None of the given

In LAN network occupies the smaller area like a room a floor or a building.(P# 4)

Hardware that calculates a CRC uses two simple components.

- ▶ AND unit and XOR unit
- ▶ Shift register and XOR unit
- ▶ Shift register and ANDunit
- ▶ none of the given

CRC uses just two hardware components:

- Shift register
- Exclusive OR (XOR unit) .(P# 20)

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps
- ▶ 100 Mbps
- ▶ 1000 Mbps
- ▶ None of the given

Gigabit Ethernet that operates at 1 Gbps (1000 Mbps) over fiber optics and twisted pair Ethernet cables.

formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ 10 Base T
- ▶ none of the given

10BASE-T:

This is another standard of wiring scheme. It is commonly called 10Base-T, Twisted Pair or TP Ethernet. (P# 43)

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- ▶ RJ-45, 10 Base T
- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

A system with redundant bridges might have a problem with _____ in the system.

▶ Loop

▶ Filters

▶ Spanning Trees

▶ All given choices

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

▶ Greedy algorithm

▶ Distance vector algorithm

▶ Dijkstra's algorithm

▶ none of the given

Dijkstra's algorithm can accommodate weights on edges in graph. The shortest Path is then the path with lowest total weight (sum of the weight with all edges). It should Be noted that the shortest path is not necessarily with fewest edges (or hops).

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

▶ Connectionless service paradigm

▶ Connection-oriented service paradigm

▶ Both Connectionless and Connection-oriented service paradigm

▶ none of the given

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer.

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ 32-bit
- ▶ 24-bit
- ▶ None of the given

An Internet address (IP address) is a unique 32-bit binary number assigned to a host and used for all communication with the host

The address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- ▶ prefix , suffix
- ▶ suffix , prefix
- ▶ suffix , suffix
- ▶ None of the given

PREFIX:

It identifies the physical network to which the computers are attached.

SUFFIX:

It identifies an individual computer on the network.

_____ places the boundary between the first and second octets

▶ Class A

▶ Class B

▶ Class C

▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

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▶ Class C

▶ Class D

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_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ None of the given

FRAGMENTATION:

_____ provides connectionless service.

- ▶ TCP
- ▶ UDP
- ▶ IP
- ▶ none of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

UDP and TCP are both_____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network

▶ Transport

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

- ▶ IP
- ▶ None of the given

▶ TCP

- ▶ UDP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- Connection-oriented service
- Point-to-point
- Complete reliability
- Full-duplex communication
- Stream interface
- Reliable connection start-up
- Graceful connection shutdown

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ Transport Layer

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer

_____ identifies which application program on receiving computer should receive

the data

- ▶ Logical address
- ▶ Source port
- ▶ Destination Port
- ▶ None of the given

_____ identifies the application program that sent the data.

- ▶ Destination Port
- ▶ Source port
- ▶ Logical address
- ▶ None of the given

The Border Gateway Protocol (BGP) uses _____ for all communication

- ▶ UDP
- ▶ TCP
- ▶ Both UDP and TCP
- ▶ None of the given

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

.

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

ROUTING INFORMATION PROTOCOL (RIP):

It has the following characteristics:

"It is used for routing within an autonomous system (IGP).

"Hop Count Metric: RIP measures distance in network hops, where each network between the source and destination counts as a single hop.

"It uses UDP for all message transmissions.

"RIP is used over LAN. Version 1 of RIP uses hardware broadcast and version 2 allows delivery via multicast.

"It can be used to advertise default route propagation. An organization can use RIP to install a default route in each router.

"It uses distance vector algorithm.

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- ▶ **True**
- ▶ False

ICMP message transport is acted upon by getting ICMP encapsulated in IP (P# 117)

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ software
- ▶ operating system
- ▶ internet

Protocol addresses are abstractions provided by software

These packets serve same purpose on _____ as frames on _____

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ Internet, LAN

VIRTUAL PACKETS:

These packets serve same purpose in Internet as frames on LAN

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ False

Address mask defines how many bits of address are in prefix. Prefix defines how much of address used to identify network.

A single networking technology is best for all needs.

- ▶ True

▶ False

There is no single networking technology that is best for all needs

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ True

▶ False

the chief problems with multiple networks are as follows:

- A computer attached to a given network can only communicate with other Computers attached to the same network.

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ Itself

▶ prefix

▶ suffix

▶ mask

Classful IP addresses are self-identifying because the class of the address can be computed from the address itself

Find the class of the address.

10100111 11011011 10001011 01101111

▶ A

▶ B

▶ E

▶ C

Reference table handouts P # 87

Find the class of the address:

11110011 10011011 11111011 00001111

▶ A

▶ C

▶ E

▶ B

[Reference table handouts P # 87](#)

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

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

▶ T

▶ D

▶ C

▶ T, C

[Reference table handouts P # 97](#)

Which method of Address Resolution Protocol requires hardware broadcast?

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

▶ D

▶ T

▶ C

▶ T, D

Reference table handouts P # 97

**Which method of Address Resolution Protocol resolution with minimum delay?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?**

▶ T, D

▶ c

▶ T

▶ T, C

Reference table handouts P # 97

**In which method of Address Resolution Protocol the implementation is more difficult?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?**

▶ T, C

▶ T

▶ C

▶ D

Reference table handouts P # 97

On of the design goals for unicast route propagation is _____.

▶ Consistency

▶ inconsistency

▶ stability

▶ dynamic addressing

On of the design goals for unicast route propagation is stability—continual changes in route are undesirable because they lead to higher jitter and datagram arriving out of order. Thus, once a unicast routing protocol finds a shortest path, it usually retains the route until a failure makes the path unusable. (Reference from E-book)

Propagation multicast routing information differs dramatically from unicast route propagation?

▶ True

▶ False

Propagating multicast routing information differs dramatically from unicast route propagation. The difference arises because internet multicast allows dynamic group membership and autonomous senders

to save traffic an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

▶ True

▶ False

to save traffic, an EGP summarize routing information from the autonomous system before passing it to another autonomous system. More important an EGP implements policy constraint that allows a system manager to determine exactly what information is released outside the organization. (Reference from E-book)

In IPv6 the type of address used for collection of computers with same prefix. Are known as _____

▶ Anycast

▶ Unicast

▶ Multicast

▶ none of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

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Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. _____.

- ▶ Unicast
- ▶ Anycast
- ▶ Multicast
- ▶ none of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix, Datagram is delivered to one out of cluster.

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- ▶ True
- ▶ False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

- Applications can depend on protocol to preserve data boundaries.

Reliability is the responsibility of the _____ layer

- ▶ Network
- ▶ Data link
- ▶ Transport
- ▶ Application

Reliability is the responsibility of the Transport layer

TCP uses _____ mechanism to control the flow of data.

- ▶ Door
- ▶ window
- ▶ acknowledgment
- ▶ retransmission

TCP uses window mechanism to control the flow of data.

the time for acknowledgement to arrival of packet depends on.

- ▶ Distance to destination and Current traffic conditions
- ▶ Current traffic conditions
- ▶ Distance to destination
- ▶ non of these

The time for acknowledgement to arrive depends on:

- *Distance to destination*
- *Current traffic conditions*

FDDI can transmits data at a rate of -----

▶ 100 million bits per second

▶ 10 million bits per second

▶ 1000 million bits per second

▶ None of the given

the time for acknowledgement to arrival of packet depends on.

▶ Distance to destination and Current traffic conditions

▶ Current traffic conditions

▶ Distance to destination

▶ non of these

The time for acknowledgement to arrive depends on:

• *Distance to destination*

• *Current traffic conditions*

FDDI can transmits data at a rate of -----

▶ 100 million bits per second

▶ 10 million bits per second

▶ 1000 million bits per second

▶ None of the given

Delivered By:

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Question No: 1 (Marks: 1) - Please choose one

No error detection scheme is perfect because transmission errors can affect the additional information as well as the data.

True (Reference is given below)

False

(No error detection scheme is perfect because transmission errors can affect the additional information as well as the data. A cyclically redundancy check, which is slightly more difficult to computer can detect more errors then a Parity or Check sum mechanism.)

Question No: 2 (Marks: 1) - Please choose one

----- Program sends a message to a remote computer and reports whether the computer responds.

Ping (P-11)

Trace route

ICMP

Non of the given

Question No: 3 (Marks: 1) - Please choose one

----- was especially concerned about the lack of high powered computers.

ARPA (Search by Internet) [click here to see](#)

IEEE

EIA

Non of the given

Question No: 4 (Marks: 1) - Please choose one

The term ----- is used to denote the definition of a packet used with a specific type of network.

Packet

Frame (p-16)

Data

None of the given

Question No: 5 (Marks: 1) - Please choose one

Computer networks are often called ----- because they use packet technology.

- Ethernet
- Switch networks
- Packet networks (Search by Internet) Click Here to see**
- None of the given

Question No: 6 (Marks: 1) - Please choose one

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

- CRC (p-20)**
- Parity
- Checksums
- None of given

Question No: 7 (Marks: 1) - Please choose one

Most LANs that employ ring topology use an access mechanism known as-----

- CSMA/CD
- CSMA/CA
- TOKEN PASSING (p-30)**
- None of the given

Question No: 8 (Marks: 1) - Please choose one

IEEE LLC/SNAP header is -----, which is used to specify the type of data.

- 8 octets (p-37)**
- 8 bytes
- 8 bits
- None of the given

Question No: 9 (Marks: 1) - Please choose one

Formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- 10 Base 2
- 10 Base 5
- 10 Base T (p-46)**
- None of the given

Question No: 10 (Marks: 1) - Please choose one

An interface for twisted pair Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- RJ-45, 10 Base T (p-47)**
- RJ-45, 10 Base 5
- BNC, 10 Base 2
- BNC, 10 Base T

Question No: 11 (Marks: 1) - Please choose one

A bridges function in the _____ layers(s).

- Physical (MAC)
- Data link
- Network (not sure)**
- Physical (MAC) and Data link

Question No: 12 (Marks: 1) - Please choose one

A Bridge can _____

- Filter a frame
- Forward a frame
- Extend a LAN
- Do all the above (p-50)**

Question No: 13 (Marks: 1) - Please choose one

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's _____

- Layer 2 source address
- Source node's physical address
- Layer 2 destination address (not sure)**
- Layer 3 destination address

Question No: 14 (Marks: 1) - Please choose one

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- Greedy algorithm
- Distance vector algorithm
- Dijkstra's algorithm (p-62)**
- Non of the given

Question No: 15 (Marks: 1) - Please choose one

_____ is used for audio and video, since these have predefined maximum data rates

- Constant Bit Rate (CBR) service (p-71)**
- Variable Bit Rate (VBR) service
- Available Bit Rate (ABR) service
- None of the given

Question No: 16 (Marks: 1) - Please choose one

Unlike Frame Relay and ATM, SMDS (Switched multi-megabit Data service) offers_____ .

- Connectionless service paradigm (p-152)**
- Connection oriented service paradigm
- Both Connectionless and Connection-oriented service paradigm
- None of the given

Question No: 17 (Marks: 1) - Please choose one

A network with throughput T and delay D has a total of _____ bit in transit at any time.

- T / D
- T x D (p-80)**
- T + D
- None of the given

Question No: 18 (Marks: 1) - Please choose one

ATM is designed to work on_____.

- Twisted Pair
- Coaxial
- Radio Frequency
- Fiber (p-32)**

Question No: 19 (Marks: 1) - Please choose one

Computers attached to an Ethernet use ----- in which a computer waits for the ether to be idle before transmitting a frame.

- CSMA/CD (p-43)**
- CSMA/CA
- TOKEN PASSING
- None of the given

Question No: 20 (Marks: 1) - Please choose one
FDDI can transmits data at a rate of -----

- 100 million bits per second (p-31)**
- 10 million bits per second
- 1000 million bits per second
- None of the given

Question No: 1 (M a r k s : 1)

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ **Star and Tree** (Reference is given below)
- ▶ None of the given

In Point-to-Point topology there are two topologies.

1) STAR topology 2) TREE topology

Question No: 2 (M a r k s : 1)

----- Program sends a message to a remote computer and reports whether the computer responds.

- ▶ **Ping** (Reference is given below)
- ▶ Traceroute
- ▶ ICMP
- ▶ Non of the given

Ping program tests reach ability. It sends datagram from B to A, that echoes back to B. it uses ICMP echo request and echo reply messages.

Question No: 3 (M a r k s : 1)

----- has no way to determine the cause of the problem.

- ▶ ICMP
- ▶ **Ping** (Reference is given below)
- ▶ Trace route
- ▶ Non of the given

Ping has no way to determine the cause of the problem. Tracing A Route Network administrators use another tool, trace route.

Question No: 4 (M a r k s : 1)

The term----- ----- refers to the general concept of a small block of data

- ▶ **Packet** (Reference is given below)
- ▶ Frame
- ▶ Data
- ▶ None of the given

Packet is a generic term that refers to small block of data. Packet have different format. Each hardware uses different packet format.

Question No: 5 (M a r k s : 1)

----- scheme, which is designed to help detect transmissions errors, send one extra bit of information with each character

- ▶ **Parity** (Reference is given below)
- ▶ Checksums
- ▶ CRC
- ▶ None of given

A parity scheme, which is designed to help detect transmission errors, sends one extra bit of information with each character. Although it allows receiver to determine if a single bit has been changed parity can not detect transmission errors that change an even number of bits.

Question No: 6 (M a r k s : 1)

Local Talk is a LAN technology that employs -----

- ▶ **Bus topology** (Reference is given below)
- ▶ Ring topology
- ▶ Star topology
- ▶ None of the given

LOCAL TALK:

Apple invented the LAN technology that uses bus topology. Its interface is included with all Macintosh computers.

Question No: 7 (M a r k s: 1)

Most LANs that employ ring topology use an access mechanism known as-----

- ▶ CSMA/CD
- ▶ CSMA/CA
- ▶ **TOKEN PASSING** (Reference is given below)
- ▶ None of the given

Most LANs that employ ring technology use an access mechanism known as token passing. A token ring operates as a single, shared medium. When a computer wants to send data, it must wait until it obtains the token, when it is in control of the ring

Question No: 8 (M a r k s: 1)

Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64
- ▶ **48** (Reference is given below)
- ▶ 32
- ▶ 8

Ethernet uses a 48-bit static addressing scheme

Question No: 9 (M a r k s: 1)

Formally named _____ informally known as the thick wire Ethernet or Thick net.

- ▶ 10 Base 2
- ▶ **10 Base 5** (Reference is given below)
- ▶ 10 Base T
- ▶ None of the given

Thick Ethernet, officially known as 10 Base 5, is the oldest form of Ethernet. It was originally developed in the late 1970's by Digital Equipment Corporation, IBM, and Xerox, and became an international standard (IEEE 802.3) in 1983.

Taken from <http://www.maznets.com/tech/10base-5.htm>

Question No: 10 (M a r k s: 1)

Formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ **10 Base T (Reference is given below)**
- ▶ None of the given

twisted pair ethernet

Formally called 10 Base –T

- *Also twisted pair Ethernet or simply TP Ethernet*

Question No: 11 (M a r k s: 1)

The maximum size of an Ethernet segment is _____

- ▶ 250 meters
- ▶ **500 meters (Reference is given below)**
- ▶ 700 meters
- ▶ None of the given

One Ethernet cable is sometimes called a segment. This segment is limited to 500 meters in length. The minimum separation between connections is 3 meters. (P# 27)

Question No: 12 (M a r k s: 1)

A Bridge can _____

- ▶ Filter a frame
- ▶ Forward a frame
- ▶ Extend a LAN
- ▶ **Do all the above (Reference is given below)**

A bridge is a hardware device also used to connect two LAN segments to extend a LAN. It listens to all traffic and recognizes frame format. It also forwards only correct complete frames and discards the collided and error frames.

The most important task a bridge performs is frame filtering.

Question No: 13 (M a r k s: 1)

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- ▶ Greedy algorithm
- ▶ Distance vector algorithm
- ▶ **Dijkstra's algorithm** (Reference is given below)
- ▶ Non of the given

Dijkstras algorithm computes shortest paths in a graph by using weights on edge as a measure of distance. A path with the fewest number of edges may not be the path with least weight. (P# 173 e-books)

Question No: 14 (M a r k s: 1)

_____ is used for compressed audio and video where the data rate depends on the level of compression that can be achieved.

- ▶ Constant Bit Rate (CBR) service
- ▶ **Variable Bit Rate (VBR) service** (Reference is given below)
- ▶ Available Bit Rate (ABR) service
- ▶ None of the given

VARIABLE BIT RATE (VBR):

It is used for compressed audio and video where the data rate depends on the level of compression that can be achieved.

Question No: 15 (M a r k s: 1)

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ **Connectionless service paradigm** (Reference is given below)
- ▶ Connection-oriented service paradigm
- ▶ Both Connectionless and Connection-oriented service paradigm
- ▶ None of the given

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a connectionless service paradigm. Although a computer needs to wait for access to a shared medium before sending a packet

(zh,vuzs,nov10)

Question No: 16 (M a r k s : 1)

The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area
- ▶ Volume
- ▶ Length
- ▶ **None of the given** (Reference is given below)

DELAY THROUPTUT PRODUCT:

It is computed as delay time multiplied by effective throughput. It measures amount of data that can be present in the network (P# 80)

Question No: 17 (M a r k s : 1)

A network with throughput T and delay D has a total of _____ bit in transit at any time.

- ▶ T / D
- ▶ **$T \times D$** (Reference is given below)
- ▶ $T + D$
- ▶ None of the given

A network with throughput T and delay D has a total of $T \times D$ bits in transit at any time. (e-books)

Question No: 18 (M a r k s: 1)

One repeater _____, two repeaters _____ the maximum cable length limitation.

- ▶ **doubles, triple** (Reference is given below)
- ▶ square roots, cube roots
- ▶ and, triple
- ▶ doubles, cancel

One repeater doubles, two repeaters triple the maximum cable length limitation. (P# 49)

Question No: 19 (M a r k s: 1)

A network uses a ----- if all computers attach to a central point

- ▶ **Star Topology** (Reference is given below)
- ▶ Ring Topology
- ▶ Bus Topology
- ▶ None of the given

STAR TOPOLOGY:

In this topology, all computers are attached to a central point, which is sometimes called the "Hub" (P# 25)

Question No: 20 (M a r k s: 1)

Computers attached to an Ethernet use ----- in which a computer waits for the other to be idle before transmitting a frame.

- ▶ **CSMA/CD** (Reference is given below)
- ▶ CSMA/CA
- ▶ TOKEN PASSING
- ▶ None of the given

All computers attached to the Ethernet use CSMA/CD to co-ordinate their activities. A computer wishing to transmit checks for electrical activity on the cable, informally called a carrier. If there is no carrier, the computer can transmit. If a carrier is present, the computer waits for the sender to finish before proceeding.

Fall 2008

CS610- Computer Network (Session - 2)

Time: 60 min

Marks: 38

Question No: 1 (Marks: 1) - Please choose one

A typical port on an ATM switch operates at _____ or higher.

- OC-2 speed (155Mbps)
- OC-3 speed (100Mbps)
- OC-3 speed (155Mbps) (p-72)**
- OC-3 speed (155Gbps)

Question No: 2 (Marks: 1) - Please choose one

The product of delay and throughput measures the _____ of data that can be present on the network.

- Area
- Volume
- Length
- None of the given (p-80)**

Question No: 3 (Marks: 1) - Please choose one

_____ is used for compressed audio and video where the data rate depends on the level of compression that can be achieved.

- Constant Bit Rate (CBR) service
- Variable Bit Rate (VBR) service (p-71)**
- Available Bit Rate (ABR) service
- None of the given

Question No: 4 (Marks: 1) - Please choose one

Which of the following is a connecting device?

- Bridge
- Repeater
- Hub
- All the given (p-54)**

Question No: 5 (Marks: 1) - Please choose one

A bridges function in the _____ layers(s).

- Physical (MAC)
- Data link

Network (not sure)

Physical (MAC) and Data link

Question No: 6 (Marks: 1) - Please choose one

IEEE LLC/SNAP header is -----, which is used to specify the type of data.

8 octets (p-37)

8 bytes

8 bits

None of the given

Question No: 7 (Marks: 1) - Please choose one

The third field of the header consists of ----- bit Ethernet frame type.

48

32

16 (p-36)

8

Question No: 8 (Marks: 1) - Please choose one

An -----method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.

Explicit frame type (not sure)

Ideal frame type

Implicit frame type

None of the given

Question No: 9 (Marks: 1) - Please choose one

Local Talk is a LAN technology that employs -----

Star topology

Bus topology (p-30)

Ring topology

None of the given

Question No: 10 (Marks: 1) - Please choose one

The Fast Ethernet hardware operates at a rate of -----

10 Mbps

100 Mbps (p-27)

1000 Mbps

None of the given

Question No: 11 (Marks: 1) - Please choose one
----- scheme, which is designed to help detect transmissions errors, send one extra bit of information with each character

- Parity
- Checksums (p-19)**
- CRC
- None of given

Question No: 12 (Marks: 1) - Please choose one
Computer networks are often called ----- because they use packet technology.

- Ethernet
- Switch networks
- Packet networks (repeated)**
- None of the given

Question No: 13 (Marks: 1) - Please choose one
----- Program sends a message to a remote computer and reports whether the computer responds.

- Ping (p-11)**
- Traceroute
- ICMP
- Non of the given

Question No: 14 (Marks: 1) - Please choose one
In -----, network occupies larger areas like cities & countries.

- LAN
- WAN (p-55)**
- MAN
- None of the given

Question No: 15 (Marks: 1) - Please choose one
In -----, network occupies the smaller area like a room a floor or a building

- LAN (p-55)**
- WAN
- MAN
- None of the given

Question No: 16 (Marks: 1) - Please choose one
In Point-to-Point topology there are two topologies.

- Tree and Ring
- Star and Ring
- Star and Tree (p-2)**
- None of the given

MIDTERM EXAMINATION

Fall 2008

CS610- Computer Network (Session - 2)

Ref No: 109816

Time: 60 min

Marks: 38

Question No: 1 (Marks: 1) - Please choose one
_____ has a jitter zero

- None of the given
- Virtual Private Network
- Isochronous Network
- Asynchronous Network (p-65)**

Question No: 2 (Marks: 1) - Please choose one
Unlike Frame Relay and ATM, SMDS (Switched multi-megabit Data service) offers _____ .

- Connectionless service paradigm (p-77)**
- Connection oriented service paradigm
- Both Connectionless and Connection-oriented service paradigm
- None of the given

Question No: 3 (Marks: 1) - Please choose one
ATM assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

- 21-bit
- 22-bit
- 23-bit
- 24-bit (p-67)**

Question No: 4 (Marks: 1) - Please choose one

_Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called _____

Hierarchal address

Default route (p-60)

Shortest path

None of the given

Question No: 5 (Marks: 1) - Please choose one

_The next hop to which a packet is sent depends only on

Packet's destination (p-102)

Packet's original source

Path the packet has taken

Non of the given

Question No: 6 (Marks: 1) - Please choose one

_An interface for twisted pair Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

RJ-45, 10 Base T (p-46)

RJ-45, 10 Base 5

BNC, 10 Base 2

BNC, 10 Base T

Question No: 7 (Marks: 1) - Please choose one

_When an application----- data, it makes a copy of the data available to all other computers on the network.

Broadcasting (p-53)

Multicasting

Unicasting

None of the given

Question No: 8 (Marks: 1) - Please choose one

_A ----- provide a mechanism that a customer can use to set a physical address.

Static addressing scheme

Configurable addressing scheme (p-34)

Dynamic addressing scheme

None of the given

Question No: 9 (Marks: 1) - Please choose one

_FDDI can transmits data at a rate of -----

- 100 million bits per second ----- (p-31)**
 100 million bits per second
 100 million bits per second
 100 million bits per second
 None of the given

Question No: 10 (Marks: 1) - Please choose one

_Computers attached to an ether use ----- in which a computer waits for the ether to be idle before transmitting a frame.

- CSMA/CD**
 CSMA/CA
 TOKEN PASSING
 None of the given

Question No: 11 (Marks: 1) - Please choose one

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

- CRC
 Parity
 Checksums (p-19)
 None of given

Question No: 12 (Marks: 1) - Please choose one

_The term ----- is used to denote the definition of a packet used with a specific type of network.

- Packet
 Frame (p-16)
 Data
 None of the given

Question No: 13 (Marks: 1) - Please choose one

_----- has no way to determine the cause of the problem.

- Ping (p-11)**
 Trace route
 ICMP
 Non of the given

Question No: 14 (Marks: 1) - Please choose one

_----- Program sends a message to a remote computer and reports whether the computer responds.

- Ping (p-11)**
- Traceroute
- ICMP
- Non of the given

Question No: 15 (Marks: 1) - Please choose one

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

- LAN (p-55)**
- WAN
- MAN
- None of the given

MIDTERM EXAMINATION

Spring 2010

CS610- Computer Network

Question No: 1 (Marks: 1) - Please choose one

In *Point-to-Point* topology there are two topologies.

- ▶ **Star and Tree (P-5)**
- ▶ Star and Ring
- ▶ Star and Bus
- ▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

----- Program sends a message to a remote computer and reports whether the computer responds.

- ▶ **Ping (p-11)**
- ▶ Traceroute
- ▶ ICMP

- ▶ Non of the given

Question No: 3 (Marks: 1) - Please choose one

----- has no way to determine the cause of the problem.

- ▶ ICMP
- ▶ Non of the given
- ▶ **Ping (p-11)**
- ▶ Trace route

Question No: 4 (Marks: 1) - Please choose one

The term----- refers to the general concept of a small block of data

- ▶ **Packet (p-16)**
- ▶ Frame
- ▶ Data
- ▶ None of the given

Question No: 5 (Marks: 1) - Please choose one

----- scheme, which is designed to help detect transmissions errors, send one extra bit of information with each character

- ▶ **Parity (p-18)**
- ▶ Checksums

- ▶ CRC
- ▶ None of given

Question No: 6 (Marks: 1) - Please choose one

Local Talk is a LAN technology that employs -----

- ▶ **Bus topology (p-30)**
- ▶ Ring topology
- ▶ None of the given
- ▶ Star topology

Question No: 7 (Marks: 1) - Please choose one

Most LANs that employ ring topology use an access mechanism known as-----

- ▶ CSMA/CD
- ▶ CSMA/CA
- ▶ **TOKEN PASSING (p-30)**
- ▶ None of the given

Question No: 8 (Marks: 1) - Please choose one

Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64
- ▶ **48 (p-98)**
- ▶ 32

▶ 8

Question No: 9 (Marks: 1) - Please choose one

Formally named _____ informally known as the thick wire Ethernet or Thick net.

▶ 10 Base 2

▶ 10 Base 5

▶ **10 Base T (p-40)**

▶ None of the given

Question No: 10 (Marks: 1) - Please choose one

Formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

▶ **10 Base 2 (p-46)**

▶ 10 Base 5

▶ 10 Base T

▶ None of the given

Question No: 11 (Marks: 1) - Please choose one

The maximum size of an Ethernet segment is _____

▶ 250 meters

▶ **500 meters (p-27)**

▶ 700 meters

▶ None of the given

Question No: 12 (Marks: 1) - Please choose one

A Bridge can _____

- ▶ Filter a frame
- ▶ Forward a frame
- ▶ Extend a LAN
- ▶ **Do all the above (p-50)**

Question No: 13 (Marks: 1) - Please choose one

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- ▶ Greedy algorithm
- ▶ Distance vector algorithm
- ▶ **Dijkstra's algorithm (p-62)**
- ▶ Non of the given

Question No: 14 (Marks: 1) - Please choose one

_____ is used for compressed audio and video where the data rate depends on the level of compression that can be achieved.

- ▶ Constant Bit Rate (CBR) service
- ▶ **Variable Bit Rate (VBR) service (p-71)**
- ▶ Available Bit Rate (ABR) service
- ▶ None of the given

Question No: 15 (Marks: 1) - Please choose one

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ **Connectionless service paradigm (p-77)**
- ▶ Connection-oriented service paradigm
- ▶ Both Connectionless and Connection-oriented service paradigm
- ▶ None of the given

Question No: 16 (Marks: 1) - Please choose one

The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area
- ▶ Volume
- ▶ Length
- ▶ **None of the given (p-80)**

Question No: 17 (Marks: 1) - Please choose one

A network with throughput T and delay D has a total of _____ bit in transit at any time.

- ▶ T / D
- ▶ **$T \times D$ (p-80)**
- ▶ $T + D$
- ▶ None of the given

Question No: 18 (Marks: 1) - Please choose one

One repeater _____, two repeaters _____ the maximum cable length limitation.

▶ **doubles, triple (p-49)**

▶ square roots, cube roots

▶ and, triple

▶ doubles, cancel

Question No: 19 (Marks: 1) - Please choose one

A network uses a ----- if all computers attach to a central point

▶ **Star Topology (p-25)**

▶ Ring Topology

▶ Bus Topology

▶ None of the given

Question No: 20 (Marks: 1) - Please choose one

Computers attached to an Ethernet use ----- in which a computer waits for the ether to be idle before transmitting a frame.

▶ **CSMA/CD (p-28)**

▶ CSMA/CA

▶ TOKEN PASSING

▶ None of the given

Question No: 1 (Marks: 1) - Please choose one

_____ has a jitter zero

- ▶ None of the given
- ▶ Virtual Private Network
- ▶ Isochronous Network
- ▶ **Asynchronous Network (p-65)**

Question No: 2 (Marks: 1) - Please choose one

Unlike Frame Relay and ATM, SMDS (Switched multi-megabit Data service) offers_____ .

- ▶ **Connectionless service paradigm (p-77)**
- ▶ Connection oriented service paradigm
- ▶ Both Connectionless and Connection-oriented service paradigm
- ▶ None of the given

Question No: 3 (Marks: 1) - Please choose one

ATM assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

- ▶ 21-bit
- ▶ 22-bit
- ▶ 23-bit
- ▶ **24-bit (p-67)**

Question No: 4 (Marks: 1) - Please choose one

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called_____

- ▶ Hierarchal address
- ▶ **Default route (p-60)**
- ▶ Shortest path
- ▶ None of the given

Question No: 5 (Marks: 1) - Please choose one

The next hop to which a packet is sent depends only on

- ▶ **Packet's destination (p-102)**
- ▶ Packet's original source
- ▶ Path the packet has taken
- ▶ Non of the given

Question No: 6 (Marks: 1) - Please choose one

An interface for twisted pair Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ RJ-45, 10 Base T (p-46)

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

Question No: 7 (Marks: 1) - Please choose one

When an application----- data, it makes a copy of the data available to all other computers on the network.

▶ Broadcasting (p-53)

- ▶ Multicasting
- ▶ Unicasting
- ▶ None of the given

Question No: 8 (Marks: 1) - Please choose one

A ----- provide a mechanism that a customer can use to set a physical address.

- ▶ Static addressing scheme
- ▶ Configurable addressing scheme (p-34)**
- ▶ Dynamic addressing scheme
- ▶ None of the given

Question No: 9 (Marks: 1) - Please choose one

FDDI can transmits data at a rate of -----

▶ 100 million bits per second (p-31)

- ▶ 100 million bits per second
- ▶ 100 million bits per second
- ▶ None of the given

Question No: 10 (Marks: 1) - Please choose one

Computers attached to an ether use ----- in which a computer waits for the ether to be idle before transmitting a frame.

▶ CSMA/CD (not sure)

- ▶ CSMA/CA
- ▶ TOKEN PASSING
- ▶ None of the given

Question No: 11 (Marks: 1) - Please choose one

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

- ▶ CRC
- ▶ Parity
- ▶ **Checksums (p-19)**
- ▶ None of given

Question No: 12 (Marks: 1) - Please choose one

The term ----- is used to denote the definition of a packet used with a specific type of network.

- ▶ Packet
- ▶ **Frame (p-16)**
- ▶ Data
- ▶ None of the given

Question No: 13 (Marks: 1) - Please choose one

----- has no way to determine the cause of the problem.

- ▶ **Ping (p-11)**
- ▶ Trace route
- ▶ ICMP
- ▶ Non of the given

Question No: 14 (Marks: 1) - Please choose one

----- Program sends a message to a remote computer and reports whether the computer responds.

- ▶ **Ping (p-11)**
- ▶ Traceroute
- ▶ ICMP
- ▶ Non of the given

Question No: 15 (Marks: 1) - Please choose one

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

- ▶ **LAN (p-55)**
- ▶ WAN
- ▶ MAN
- ▶ None of the given

Question No: 21 (Marks: 2)**What is the difference between the physical and logical topologies?**

Every LAN has a topology, or the way that the devices on a network are arranged and how they communicate with each other.

PHYSICAL TOPOLOGY:

The way that the workstations are connected to the network through the actual cables that transmit data -- the physical structure of the network -- is called the physical topology. It depends on the wiring scheme.

LOGICAL TOPOLOGY:

The logical topology, in contrast, is the way that the signals act on the network media, or the way that the data passes through the network from one device to the next without regard to the physical interconnection of the devices. We can say that it is defined by the specific network technology.

Question No: 22 (Marks: 2)**Define Vector-Distance Algorithm.**

Packet switches wait for next update message and they iterate through entries in message. If entry has shortest path to destination, insert source as next hop to destination

and record distance as distance from next hop to destination plus distance from this switch to next hop.

Question No: 23 (Marks: 3)**What is the concept of store and forward technology?****STORE AND FORWARD:**

Data delivery from one computer to another is accomplished through store and forward technology. In this technology packet switch stores incoming packet and also forwards that packet to another switch or computer. For this purpose packet switch has internal memory into which it can hold packet if outgoing connection is busy. Packets for each connection held on queue.

Question No: 24 (Marks: 3)**How can Switched Virtual Network be established?****SWITCHED VIRTUAL CIRCUITS:**

Most networks offer dynamic connections, which last for a relatively short time. To handle this, ATM can dynamically establish a switched virtual circuit (SVC), allow it last as long as necessary and then terminate it.

The terminology comes from the Telco's where switching system normally refers to all switching.

ESTABLISHING AN SVC:

The computer sends a connection request to the switch to which it is attached.

Software in the switch finds a network path to the destination and sends along the connection request.

Each pair of switches in the path communicates to choose a VPI/VCI for their tables.

Once the connection is established by the destination, a message is sent back to the originating computer to indicate the SVC is ready.

If any switch or the destination computer does not agree to setting up the VC, an error message is sent back and the SVC is not established

Question No: 25 (Marks: 5)**How can a bridge know whether to forward frames?**

The bridge builds a list of MAC addresses on either side of the bridge. Therefore, it knows which packets should be forwarded to the other side and which should not. Most bridges are self-learning bridges. As soon as a frame arrives to a bridge, it extracts a source address from its header and automatically adds it in the list for that segment. In this way a bridge builds up address lists.

In the example of a packet that uses a MAC address not in its table it can err on the side of caution by forwarding the packet.

Question No: 26 (Marks: 5)**Compare connection oriented and connectionless Service.****Connection-Oriented vs. Connectionless Service**

This characteristic specifies whether conversations take place in a more or less structured manner. When using a connection-oriented protocol, you incur the overhead of setting up a virtual circuit (a defined communications path) between the sender and

receiver, which is maintained until the sender and receiver have completed their entire conversation.

When the conversation is completed, you incur the overhead of tearing down the virtual circuit. Connection-oriented protocols provide guaranteed delivery of messages in the order in which they were sent.

Contrast this with Connectionless service, which does not require establishing a session and a virtual circuit. This can be found in the network layer or transport layer, depending on the protocol. You can think of a connectionless protocol as being akin to mailing a post card. You send it and hope that the receiver gets it. Common features of a connectionless service are:

- Packets do not need to arrive in a specific order
- Reassembly of any packet broken into fragments during transmission must be in proper order
- No time is used in creating a session
- No Acknowledgement is required.
- The largest connectionless network in use today is the Internet

Question No: 21 (Marks: 2)**What is the difference between LAN and WAN?**

Local area network (LAN)

LAN is small in size covers the area within a room, building or cities.

Wide area network (WAN)

WAN is large in size and covers the area cities, countries and continents.

Question No: 22 (Marks: 2)**Define the term Jitter.**

The term Jitter is used for variance in transmission delays. Jitter is significance for voice, video and data. Jitter can occur when a packet is delayed because the network is busy.

Question No: 23 (Marks: 3)**Give a comparison of wiring Schemes.**

Thick Ethernet wiring scheme.

This uses thick coax cable. AUI cable or transceiver or drop cable connects from NIC to transceiver. AUI cable carries digital signal from NIC to transceiver. The transceiver generates analog signal on coax cable. The wires in AUI carry digital signals power and other control signals. Thick Ethernet also requires terminators to avoid signal reflectance.

Thin Ethernet wiring scheme.

Thin Ethernet uses thin coax cable that is cheaper and easier to install than thick Ethernet coax. In thin ethernet wiring scheme transceiver electronics are built into NIC and NIC connect directly to network medium. Coax cable use connector on NIC. Coax runs directly to back of each connected computer by T-connector. The T-connector directly attaches to NIC.

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Most networks offer dynamic connections that last for a relatively short time. ATM can dynamically establish a switched virtual circuit SVC that allows it as long as necessary and then terminate it. The computer sends a connection request to the switch to which it is attached. Software in the switch finds a path to the destination and sends with the connection request. Each pair of switches in the path communicates to choose a VPI/VCI for their tables. Once the connection is established by the destination than a message is given back to the originating computer to indicate the SVC is ready.

Question No: 25 (Marks: 5)**Describe permanent virtual circuits (PVC).**

ATM can provide the virtual circuits that look like traditional leased digital circuits. The permanent virtual circuits PVC works as long as the customer pays the periodic fee for its use. The forwarding table enter configured the terms used by Telco Provisioning requires two steps. To determine a complete path. To choose appropriate VPI/VCI for each step in the path and configures each adjacent pair of switches.

Question No: 26 (Marks: 5)**What are default routes, draw the table.**

Routing table entries can collapse with a default route. If destination doesn't have in explicit routing table entry and then it use a default route. It is shown in the below table.

Destination Next

hop

Destination Next

hop

Destination Next

hop

Destination Next

hop

1 - 2 - 1 3,1 2 4,2

* 1,3 4 2,4 2 3,2 4 -

* 2,3 3 - * 4,3

4 3,4

Node 1 Node 2 Node 3 Node 4

Question No: 19 (Marks: 3)**Why 10-base T wiring scheme is called star shaped bus wiring scheme.**

The main feature of twisted pair Ethernet is that it forms a classic star topology however functions like a bus. 10Base-T Ethernet is often called a star shaped bus.

Question No: 20 (Marks: 5)

What are the main factors due to which mechanism of error detections schemes differ?

Question No: 21 (Marks: 10)

How much data can be present on an original Ethernet segment at one time? To find out,

compute the delay-throughput product. The original Ethernet operate at 10 mega bits per second, and a segment was limited to 500 meters. Assume the signals propagate down the cable at 66 percent of the speed of light.\

One Ethernet cable is sometimes called a segment. This segment is limited to 500 meters in length. The minimum separation between connections is 3 meters.

Question No: 20 (Marks: 5)

Which type of information is obtained from network sniffer and in which mode Network sniffer operates?

Solution:

A network analyzer also called network monitor or a network sniffer is used to examine the performance of or debug a network. It can report statistics such as capacity utilization, distribution of frame size, collision rate or token circulation time. Most installations still use DIX Ethernet encoding in which there is no LLC/SNAP header in the frame. A network analyzer can tell from the values in the type field (small values are lengths, which mean an LLC/SNAP header is located in the first octets of the data area; large values are types, which mean no LLC/SNAP header is included).

The operation of network analyzer is a computer with a network interface that receives all frames, which is called promiscuous mode. So many desktop computers have interface that can be configured for promiscuous mode. When combined with software computer can examine any frame on LAN. In this way the communication across LAN is guaranteed to be private. Computer receives and displays frames on the LAN. Network analyzer can be configured to filter and process frames. It can count frames of specific type of size. It displays only frames from or to specific computers.

Question No: 21 (Marks: 10)

Thick Ethernet, Thin Ethernet and Twisted pair Ethernet.

Solution:-

Thick Ethernet:

Thick Ethernet, officially known as 10 Base-5, is the oldest form of Ethernet. One form of cabling supported by Ethernet is low-loss 50 Ohm coaxial cable as shown in the figure below. This type of cable is 0.5" diameter (usually supplied with a yellow outer PVC coating) and rather inflexible. It has become known in the communications industry as "Thick Ethernet". The official name for this cable is 10 Baseband5 (10B5), indicating that it is specified for baseband communications at 10 Mbps over distances up to 500m.

Thin Ethernet:

Thin Ethernet, officially called 10 Base-2, is a less expensive version of 10 Base-5 (Thick Ethernet) technologies. It uses a lighter and thinner coaxial cable and dispenses with the external transceivers used with 10 Base-5.

10 Base-2 uses an RG-58A/U coaxial cable and is wired in a bus topology. Each device on the network is connected to the bus through a BNC "T" adapter, and each end of the bus must have a 50 Ohm terminator attached. Each node on the bus must be a minimum of 0.5 meters (1.5 feet) apart, and the overall length of the bus must be less than 185 meters (606 feet).

Twisted Pair Ethernet:

Twisted Pair Ethernet (10baseT), sometime also called "UTP" from "Unshielded Twisted Pair", is based on using a cable similar to phone-wiring. The cable is connected via RJ-45 connectors to the network card installed in the PC.

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1	-	2	-	1	3,1	2	4,2
*	1,3	4	2,4	2	3,2	4	-
		*	2,3	3	-	*	4,3
				4	3,4		
Node 1		Node 2		Node 3		Node 4	

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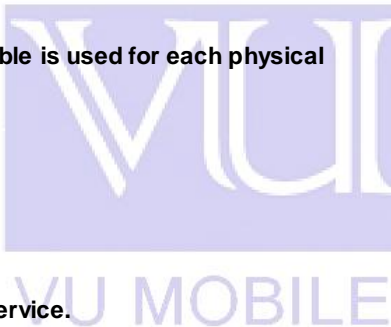
CS610 COMPUTER NETWORKS Final Term Solved MCQs Mega File (Latest All in One)

The protocol address of the next hop must be _____ to an equivalent hardware address before a packet can be sent.

- Encrypted
- Decrypted
- Translated**
- Non of these

A _____ address-binding table is used for each physical network.

- New
- Similar
- Separate**
- Old



UDP provides connection-oriented service.

- True
- False**

The UDP stands for _____.

- Universal Datagram Protocol
- User Datagram Protocol**
- United Datagram Protocol
- None of the given

In 3-way handshake TCP requires to generate a random _____ sequence number.

- 30 bit
- 32 bit**
- 34 bit
- none of the given

TCP stands for _____

- Transport control protocol
- Transmission control protocol**
- Terminal control protocol

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None of the given

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of three possible sizes.

Select correct option:

True

False

Twice NAT allows a site to run servers.

Select correct option:

True

False

Preliminary version of IP was called _____.

Select correct option:

IP - New Generation (IPng)

IP - Next Generation (IPng)

IP - Net Generation (IPng)

None of the given

_____ uses window mechanism to control the flow of data.

Select correct option:

IP

UDP

TCP

none of the given

The Internet service providers coordinate with the Internet assigned number authority to obtain their network numbers.

Select correct option:

True

False

Which protocol is used to test different tools.

Select correct option:

ICMP

IGMP

TCP/IP

none of the given

_____ identifies the application program that sent the data.

Select correct option:

Destination Port

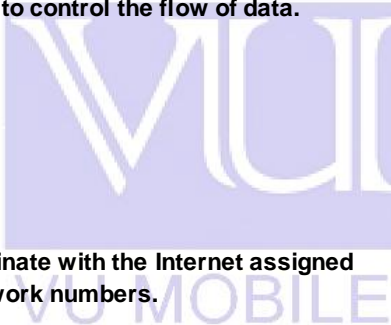
Source port

Logical address

None of the given

The Source can configure outgoing datagram's to avoid _____

Select correct option:



Segmentation
Defragmentation
Fragmentation
None of the given

The time for acknowledgement to arrive depends on _____
Select correct option:

Distance to destination
Current traffic conditions
Both a and b
None of the given

Which is not the type of error messages defined by ICMP?
Select correct option:

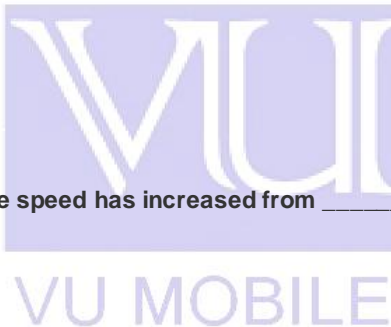
Source quench
Time exceeded
Destination unreachable
None of the given

_____ is used to attach two autonomous systems.
Select correct option

BGP
IGP
EGP
none of the given

Due to revolutionalization of IP-V6 the speed has increased from _____
Select correct option:

56kbps to 512kbps
512kbps to 1gbps
56kbps to 1gbps
none of the given



Whenever it handles a packet, IP s software needs to separate the destination address into a prefix.
Select correct option:

True
False

TTL stands for _____
Select correct option:

Time to Learn
Time to Leave
Time to Live
none of the given

IGPs stand for _____
Select correct option:

Internal Gateway Protocols
Interior Gateway Protocols

Intermediate Gateway Protocols
None of the given

_____ identifies which application program on receiving computer should receive the data
Select correct option:

- Logical address
- Source port
- Destination Port**
- None of the given

_____ encapsulates IP datagram as data area in hardware frame.
Select correct option:

- Network Interface Layer**
- Datalink Layer
- Network Layer
- None of the given

Class A mask is 255.0.0.0 which is used for _____
Select correct option:

- Unicasting
- Multicasting
- Subnetting**
- All of the given

NAT is not useful at a residence with Cable Modem or DSL connectivity.
Select correct option:

- True
- False**

Autonomous System chooses a routing protocol to exchange routing information which is passed before being summarized to another group.
Select correct option:

- True**
- False

_____ layer Provides reliable delivery of datagram.
Select correct option:

- Network
- Transport**
- Datalink
- none of the given

The process of using a routing table to select a next hop for a given datagram is called_____.
Select correct option:

- Encapsulation
- Reassembling
- Routing or forwarding**
- None of the given



The process of learning the path MTU is known as path MTU discovery.

Select correct option:

True

False

As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of _____ possible sizes.

Select correct option:

three

two

four

five

End to End delivery Service of IP datagram is _____

Select correct option:

Connection oriented

Connectionless

both a and b

none of the given

EGP stands for _____

Select correct option:

Extension Gateway Protocol

Exterior Gateway Protocol

Explicit Gateway Protocol

none of the given



Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string.

Select correct option:

True

False

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a _____ Ethernet address.

Select correct option:

16-bit

48-bit

64-bit

128-bit

Reliability is not the responsibility of the Transport layer.

Select correct option:

True

False

IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

Select correct option:

96

- 100
- 120
- none of the given

NAT software does not allow a PC to connect with the Internet and act as a NAT device at the same time.
Select correct option:

- True
- False**

TCP uses the term segment to refer to a _____.
Select correct option:

- packet
- message**
- both (a) and (b)
- None of the given

The Universal Datagram Protocol is a message-oriented protocol.
Select correct option:

- True**
- False

_____ field tells the receiver how to order fragments within a given datagram.
Select correct option:

- FLAGS
- FLAGMENT OFFSET
- IDENTIFICATION
- None of the given**



IP datagram can contains _____ octets.
Select correct option:

- 0-65,535
- 1-65,535**
- 1-65,536
- none of the given

The amount of buffer space available at any time is called the window.
Select correct option:

- True**
- False

_____ Source is responsible for fragmentation.
Select correct option:

- IPV4
- IPV6**
- IPV3
- IPV5

Routers use _____ to forward datagrams along prearranged path.

Select correct option:

Traffic class

Flow label

Destination address

none of the given

_____ protocol uses three way handshake to begin a connection.

Select correct option:

UDP

TCP

IP

none of the given

Typical internet routing uses a combination of two metrics _____.

Select correct option:

routing metrics

administrative cost and routing metrics

hop cost

administrative cost and hop count

Network Address and Port Translation (NAPT) is by far the most popular form of _____

Select correct option:

Network Address Transmission

Network Address Translation

Network Address Transformation

None of the given



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

Select correct option:

Interior Gateway protocols(IGPs)

Exterior Gateway protocol (EGPs)

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

None of the given

Interior Gateway Protocols (IGPs) and Exterior Gateway Protocols (EGPs) two broad classes of Internet Routing Protocol.

Select correct option:

True

False

The Network Layer Protocol ICMP stands for _____

Select correct option:

Instant Control Message Protocol

Internet Control Message Protocol

Initial Control Message Protocol

None of the given

The Current version of IP-Version 4 is _____ old

Select correct option:

18 years

20 years

22 years

none of given

TCP is a connectionless and reliable transport protocol.

Select correct option:

True

False

ATM header is about the _____ of the cell.

Select correct option:

15%

10%

20%

5%

Jitter is significance for _____

Select correct option:

Voice

Video

Data

All of above

How many methods exist for building routing table?

Select correct option

1

2

3

4



The process of forwarding the packets of information is called routing. The routing table contains information about the _____ immediately around it

Select correct option:

Topology of the network

Destination

Both of the above

None of the above

Which of the following statement is true regarding ATM?

Select correct option:

It is a single technology for voice, video and data

It has low jitter and high capacity

It uses fixed sized small cells. 48 octet's data

All of the above

A _____ can forward or block messages based on the information in the message itself

Select correct option

Message digest
Proxy firewall
Packet filter firewall
Private Key

Transmission media are usually categorized as

Select correct option:

Guided or unguided

Fixed or unfixed
Determinate or indeterminate
Metallic or nonmetallic

Which of the following is not a guided medium?

Select correct option:

Twisted-pair cable
Fiber-optic cable
Atmosphere
Coaxial Cable

Which multiplexing technique transmits digital signals?

Select correct option:

WDM
FDM
TDM
None of the above

All destinations on same switch have same

Select correct option:

Router
Information
Next Hop
None of the above



Which of the following statement is true regarding Distance-Vector Routing?

Select correct option:

It is very simple to implement.
Packet switch updates its own routing table first
It is used in RIP.
All of the above

An exterior switch is one with which

Select correct option:

Computers are attached
No computer is attached•
Hubs are attached externally
None of the above

Frame relay is

Select correct option:

Connection oriented service

Connectionless service

It typically ranges from 5Mbps to 1000Mbps.
None of the above

An interior switch is one with which _____
Select correct option:

- Computers are attached
- No computer is attached**
- Computers are attached internally
- None of the above

Which of the following is not a benefit of source independence?
Select correct option:

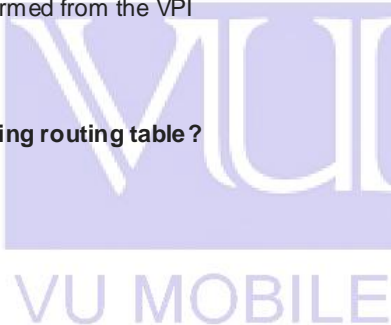
- It allows fast and efficient routing.
- Packet switch do not need to have complete information about all destinations**
- Network functions even if topology changes
- None of the above

Which of the following statement regarding ATM is true?
Select correct option:

- Connections in ATM are called virtual channels
- The VC is identified by a 24-bit value formed from the VPI
- Both (a) and (b)**
- None of the above

How many methods exist for computing routing table?
Select correct option:

- 5
- 4
- 3
- 2**



Which of the following statement is true regarding Distance-vector routing?
Select correct option:

- It is very simple to implement.
- Packet switch updates its own routing table first.**
- It is used in RIP.
- All of the above

Which one of the following is a property of static routing?
Select correct option:

- It is inflexible
- It is done at boot time
- It has low network overload
- All of the above**

Asynchronous Transfer Mode uses the concept of -----.
Select correct option:

- Connection-less networking
- Connection-oriented networking**

Which multiplexing technique shifts each signal to a different carrier frequency?

Select correct option:

TDM

FDM

Both a and b

None of the above

LAN networks can not be extended to very large networks because of the limitations of.....

Select correct option:

Area

Distance

Routers

Technology

Which of the following statement is wrong regarding ATM?

Select correct option:

It is a single technology for voice, video and data

It has low jitter and high capacity.

It uses fixed size, small cells, and 48 octet's data

None of the above

Which one of the following is the responsibility of Dijkstra' algorithm?

Select correct option:

To compute the shortest path between two nodes

To extract next hop information from path information

To insert next hop information into routing table

All of the above

Which one of the following is a property of dynamic routing?

Select correct option:

It is inflexible

It has low network overload

It can work around network failure

All of the above

Which of the following statement is true regarding ATM?

Select correct option:

ATM is a single technology that is designed to meet the goals of both LANs and WANs.

ATM uses the concept of connection-oriented networking.

Both (a) and (b)

None of the above

Source independence is a phenomena in which next hop to destination does not depend on the

.....

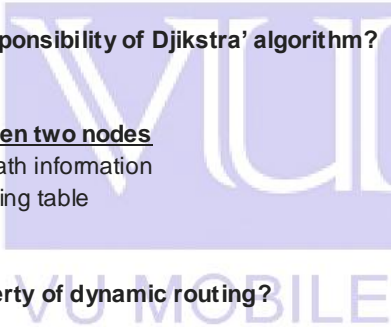
Select correct option:

Source of packet

Destination of packet

No of hops

Source of protocol



If a computer on the network shares resources for others to use, it is called _____

- a. Server
- b. Client
- c. Mainframe

Answer: a

2. Terminators are used in _____ topology.

- a. Bus
- b. Star

Answer: a

3. In _____ topology, if a computer's network cable is broken, whole network goes down.

- a. Bus
- b. Star

Answer: a

4. For large networks, _____ topology is used.

- a. Bus
- b. Star
- c. Ring

Answer: b

5. ISO stands for

- a. International Standard Organization
- b. International Student Organization
- c. Integrated Services Organization

Answer: a

6. ISO OSI model is used in

- a. Stand alone PC
- b. Network environment

Answer: b

7. Network cable lies on _____ layer

- a. Application
- b. Network
- c. Physical

Answer: c

8. _____ Layer decides which physical pathway the data should take.

- a. Application
- b. Network
- c. Physical

Answer: c

9. ISDN is an example of _____ network



a. Circuit switched

b. Packet switched

Answer: a

10. X.25 is an example of _____ network

a. Circuit switched

b. Packet switched

Answer: b

11. _____ allows LAN users to share computer programs and data.

a. Communication server

b. Print server

c. File server

Answer: c

12. Print server uses _____ which is a buffer that holds data before it is send to the printer.

a. Queue

b. Spool

c. Node

Answer: b

13. A standalone program that has been modified to work on a LAN by including concurrency controls such as file and record locking is an example of _____

a LAN intrinsic software

b. LAN aware software

c. Groupware

d. LAN ignorant software

Answer: a



14. The _____ portion of LAN management software restricts access, records user activities and audit data etc.

a. Configuration management

b. Security management

c. Performance management

Answer : b

15. What is the max cable length of STP?

a. 100 ft

b. 200 ft

c. 100 m

d. 200 m

Answer : d

16. What is the max data capacity of STP?

a. 10 mbps

b. 100 mbps

c. 1000 mbps

d. 10000 mbps

Answer: b

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17. Which connector STP uses?

- a. BNC
- b. RJ-11
- c. RJ-45**
- d. RJ-69

Answer : c

18. What is the central device in star topology?

- a. STP server
- b. Hub/switch**
- c. PDC
- d. Router

Answer : b

19. What is max data capacity for optical fiber cable?

- a. 10 mbps
- b. 100 mbps
- c. 1000 mbps**
- d. 10000 mbps

Answer : c

In Direct point to point communication adding the Nth computer requires----- new connections.

- ▶ None of the given
- ▶ N²
- ▶ N-1**
- ▶ (N² –N)/2



In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ Star and Tree**
- ▶ None of the given

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

- ▶ LAN**
- ▶ WAN
- ▶ MAN
- ▶ None of the given

Hardware that calculates a CRC uses two simple components.

- ▶ AND unit and XOR unit
- ▶ Shift register and XOR unit**
- ▶ Shift register and AND unit
- ▶ none of the given

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps

- ▶ 100 Mbps
- ▶ **1000 Mbps**
- ▶ None of the given

formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ **10 Base T**
- ▶ none of the given

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- ▶ **RJ-45, 10 Base T**
- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

A system with redundant bridges might have a problem with _____ in the system .

- ▶ **Loop**
- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- ▶ Greedy algorithm
- ▶ Distance vector algorithm
- ▶ **Dijkstra's algorithm**
- ▶ none of the given



Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ Connectionless service paradigm
- ▶ Connection-oriented service paradigm
- ▶ **Both Connectionless and Connection-oriented service paradigm**
- ▶ None of the given

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ **32-bit**
- ▶ 24-bit
- ▶ None of the given

the address _____ identifies the physical network to which the computer is attached, while the _____

identifies an individual computer on that network.

- ▶ Prefix, suffix
- ▶ **suffix, prefix**
- ▶ suffix, suffix
- ▶ none of the given

_____ places the boundary between the first and second octets

- ▶ **Class A**
- ▶ Class B
- ▶ Class C
- ▶ Class D

_____ places the boundary between the third and fourth octets.

- ▶ Class A
- ▶ Class B
- ▶ **Class C**
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_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ **None of the given**

_____ provides connectionless service.

- ▶ TCP
- ▶ **UDP**
- ▶ IP
- ▶ none of the given



UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport**

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection start-up and Graceful connection shutdown are the services provided by _____

- ▶ IP
- ▶ None of the given
- ▶ **TCP**
- ▶ UDP

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_____ identifies which application program on receiving computer should receive the data

- Logical address
- Source port
- **Destination Port**
- None of the given

_____ identifies the application program that sent the data.

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The Border Gateway Protocol (BGP) uses _____ for all communication

- UDP
- **TCP**
- Both UDP and TCP
- none of the given

_____ uses distance vector approach to define routing

- BGP
- OSPF
- **RIP**
- None of the given

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- **True**
- False

Protocol addresses are abstractions provided by _____.

- hardware
- **software**
- operating system
- internet

These packets serve same purpose on _____ as frames on _____

- Intranet, LAN
- Internet, WAN
- Intranet, WAN
- **Internet, LAN**

Address mask defines how many bits of address are in suffix?

- True
- **False**

a single networking technology is best for all needs.

- True



▶ **False**

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ **True**

▶ False

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ **Itself**

- ▶ prefix
- ▶ suffix
- ▶ mask

Find the class of the address.

10100111 11011011 10001011 01101111

- ▶ A
- ▶ **B**
- ▶ E
- ▶ C

Find the class of the address:

11110011 10011011 11111011 00001111

- ▶ A
- ▶ C
- ▶ **E**
- ▶ B



In which method of Address Resolution Protocol the protocol address is determined by hardware address? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T
- ▶ D
- ▶ **C**
- ▶ T, C

Which method of Address Resolution Protocol requires hardware broadcast?

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

▶ **D**

- ▶ T
- ▶ C
- ▶ T, D

Which method of Address Resolution Protocol resolution with minimum delay?

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

- ▶ T, D
- ▶ c
- ▶ T
- ▶ **T, C**

In which method of Address Resolution Protocol the implementation is more difficult?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T, C
- ▶ T
- ▶ C
- ▶ **D**

On of the design goals for unicast route propagation is _____.

- ▶ Consistency
- ▶ inconsistency
- ▶ **stability**
- ▶ dynamic addressing

Propagation multicast routing information differs dramatically from unicast route propagation?

- ▶ **True**
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To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

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In IPv6 the type of address used for collection of computers with same prefix. Are known as _____.

- ▶ Anycast
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- ▶ Multicast
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Reliability is the responsibility of the _____ layer

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- ▶ **Transport**
- ▶ Application

TCP uses _____ mechanism to control the flow of data.

- ▶ door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

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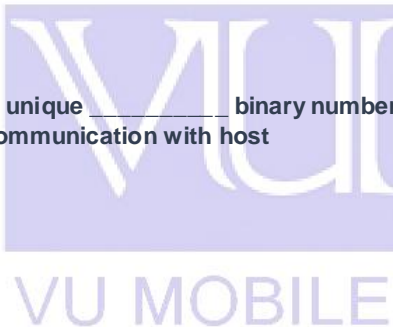
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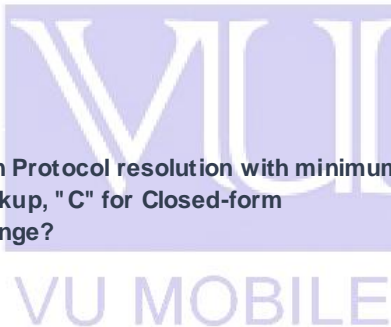
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- ▶ C
- ▶ T, D

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- ▶ c
- ▶ T
- ▶ T, C



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- ▶ C
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- ▶ Anycast
- ▶ Unicast
- ▶ Multicast
- ▶ **none of the given**

Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. _____.

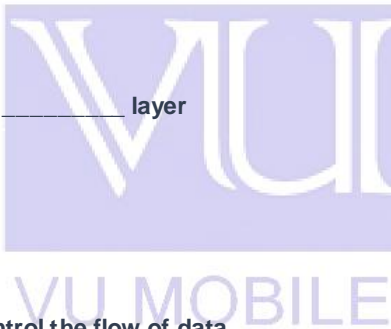
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- ▶ False

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- ▶ Network
- ▶ Data link
- ▶ **Transport**
- ▶ Application



TCP uses _____ mechanism to control the flow of data.

- ▶ Door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

the time for acknowledgement to arrival of packet depends on.

▶ **Distance to destination and Current traffic conditions**

- ▶ Current traffic conditions
- ▶ Distance to destination
- ▶ non of these

FDDI can transmits data at a rate of -----

▶ **100 million bits per second**

- ▶ 10 million bits per second
- ▶ 1000 million bits per second
- ▶ None of the given

the time for acknowledgement to arrival of packet depends on.

▶ **Distance to destination and Current traffic conditions**

- ▶ Current traffic conditions
- ▶ Distance to destination
- ▶ non of these

Question # 1 of 10 (Start time: 11:14:05 PM) Total Marks: 1

----- is also called self healing network

www.vukamoke.blogspot.com

Select correct option:

ATM

FDDI (Correct)

Token Ring

None of the given

Question # 2 of 10 (Start time: 11:15:34 PM) Total Marks: 1

Most LANs that employ ring topology use an access mechanism known as-----

Select correct option:

CSMA/CD

CSMA/CA

CSMA

TOKEN PASSING (Correct)

Question # 3 of 10 (Start time: 11:16:55 PM) Total Marks: 1

An -----method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types. www.vumobile.blogspot.com

Select correct option:

Explicit frame type (Correct)

Ideal frame type

Implicit frame type

None of the given

Question # 4 of 10 (Start time: 11:17:47 PM) Total Marks: 1

Hardware that calculates a CRC uses two simple components.

Select correct option:

AND unit and XOR unit

Shift register and XOR unit (Correct)

Shift register & AND unit

Shift register and shift XOR unit

Question # 5 of 10 (Start time: 11:18:59 PM) Total Marks: 1

The Ethernet standard specifies that frames are sent using the -----

Select correct option:

Differential Manchester

Not Return to Zero (NRZ)

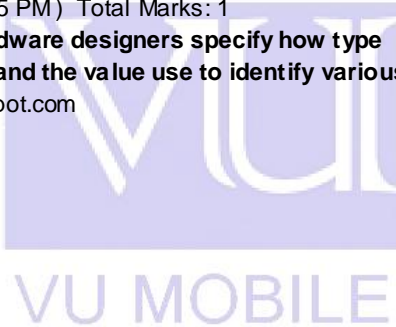
Manchester Encoding (Correct)

Return to Zero (RZ)

Question # 6 of 10 (Start time: 11:20:08 PM) Total Marks: 1

When an application ----- data, it makes a copy of the data available to all other computers on the network.

Select correct option:



Broadcasting (Correct)

- Multicasting
- Unicasting
- None of the given

Question # 7 of 10 (Start time: 11:21:26 PM) Total Marks: 1

LAN interface may use ----- to copy frame data directly from main memory.

Select correct option:

DMA (Correct)

- FDDI
- CSMA/CD
- None of the given

Question # 8 of 10 (Start time: 11:22:19 PM) Total Marks: 1

LAN and WAN are classified according to their.....

Select correct option:

Size (Correct)

- Connectivity
- Medium
- Mobility

Question # 9 of 10 (Start time: 11:23:43 PM) Total Marks: 1

For how much time would other computers be in wait while one computer was transferring 56MB file with transmission speed of 56Kbps

Select correct option:

10 Sec

- 11 Sec
- 12 Sec
- 13 Sec

Question # 10 of 10 (Start time: 11:25:05 PM) Total Marks: 1

A network uses _____ to arrange computers to be connected in a single closed loop.

Select correct option:

- Star Topology
- Dual Ring Topology

Ring Topology (Correct)

- Bus Topology

Question # 1 of 10 (Start time: 05:19:30 PM) Total Marks: 1

Which one of the following is a method for computing routing table information?

Select correct option:

Manual entry

Static routing (Correct)

- Boot time routing
- None of the above

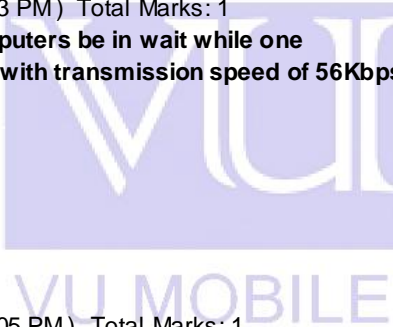
Question # 2 of 10 (Start time: 05:20:20 PM) Total Marks: 1

Thin Ethernet is known as-----

Select correct option:

10Base2 (Correct)

- 10Base5
- 10BaseT
- All of above



Question # 3 of 10 (Start time: 05:21:03 PM) Total Marks: 1

Which multiplexing technique shifts each signal to a different carrier frequency?

Select correct option:

TDM

FDM (Correct)

Both a and b

None of the above

Question # 4 of 10 (Start time: 05:22:03 PM) Total Marks: 1

The basic responsibility of NIC is -----

Select correct option:

To access medium/network

To resource allocation

To access memory

All of above (Correct)

Question # 5 of 10 (Start time: 05:23:23 PM) Total Marks: 1

How many methods exist for building routing table?

Select correct option:

1

2 (Correct)

3

4

Question # 6 of 10 (Start time: 05:24:07 PM) Total Marks: 1

The process of forwarding the packets of information is called.....

Select correct option:

Routing (Correct)

Switching

Communication

None of the above



Question # 7 of 10 (Start time: 05:24:48 PM) Total Marks: 1

The term signaling is used to describe----- Select correct option:

Communication about the internet (Correct)

Communication about the extranet

Communication about the network

None of above

Question # 8 of 10 (Start time: 05:26:17 PM) Total Marks: 1

Which of the following statement is true regarding ATM?

Select correct option:

It is a single technology for voice, video and data

It has low jitter and high capacity.

It uses fixed size, small cells, 48 octet's data

All of the above (Correct)

Question # 9 of 10 (Start time: 05:27:02 PM) Total Marks: 1

An interior switch is one with which

Select correct option:

Computers are attached

No computer is attached (Correct)

Computers are attached internally

None of the above

Question # 10 of 10 (Start time: 05:28:12 PM) Total Marks: 1

Network interface card acts like a (an) -----

Select correct option:

- Input/output device
- Input device
- Output device
- All of above (Correct)**

Question # 1 of 10 (Start time: 03:47:55 PM) Total Marks: 1

The Network Layer Protocol ICMP stands for _____

Select correct option:

- Instant Control Message Protocol (Correct)**
- Internet Control Message Protocol
- Initial Control Message Protocol
- None of the given

Question # 2 of 10 (Start time: 03:48:51 PM) Total Marks: 1

Due to revolutionalization of IP-V6 the speed has increased from _____

Select correct option:

- 56kbps to 512kbps
- 512kbps to 1gbps
- 56kbps to 1gbps (Correct)**
- none of the given

Question # 3 of 10 (Start time: 03:50:18 PM) Total Marks: 1

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

Select correct option:

- 48-bit
- 32-bit (Correct)**
- 24-bit
- None of the given

Question # 4 of 10 (Start time: 03:51:50 PM) Total Marks: 1

_____ Protocol provides error reporting mechanism.

Select correct option:

- IGMP
- SNMP
- ICMP (Correct)**
- none of the given

IPV6 addresses are _____ bits.

Select correct option:

- 32
- 64
- 128 (Correct)**
- 256

Question # 6 of 10 (Start time: 03:53:54 PM) Total Marks: 1

A _____ address-binding table is used for each physical network.

Select correct option:

- new
- similar
- separate (Correct)**
- old

Question # 7 of 10 (Start time: 03:54:21 PM) Total Marks: 1

_____ identifies the application program that sent the data.

Select correct option:



Destination Port
Source port (Correct)
Logical address
None of the given

Question # 8 of 10 (Start time: 03:55:00 PM) Total Marks: 1

TCP/IP defines the term _____ to refer any computer system that connects to an internet and runs applications Select correct option:

Router
Host computer (Correct)
Bridge
None of the given

Question # 9 of 10 (Start time: 03:56:31 PM) Total Marks: 1

The Universal Datagram Protocol is not an end-to-end protocol.
Select correct option:

True (Correct)
False

Question # 10 of 10 (Start time: 03:57:48 PM) Total Marks: 1

In _____ routing, the table is initialized when system boots and there is no further changes.
Select correct option:

Dynamic
Static
Both (a) and (b) (Correct)
None of the given



X



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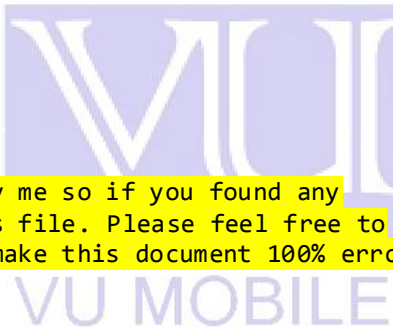
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CS610- Computer Network
Solved MCQS
From Final term Papers

June 23,2012

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Mc100401285@vu.edu.pk

PSMD01

CS610- Computer Network
FINALTERM EXAMINATION - Spring 2010

Question No: 1(M a r k s: 1)

A ----- Relies on the hardware manufacturer to assign a unique physical address to each network interface.

- ▶ **Static addressing scheme (Page 34)**
- ▶ Configurable addressing scheme
- ▶ Dynamic addressing scheme
- ▶ None of the given

Question No: 2 (M a r k s: 1)

An interface for thin Ethernet must have an _____ connector, and must enerate signals according to the _____ specification.

- ▶ RJ-45, 10 Base T
- ▶ RJ-45, 10 Base 5
- ▶ **BNC, 10 Base 2 (CS610 Reference Book , Page 21)**
- ▶ BNC, 10 Base T

Question No: 3(M a r k s: 1)

A system with redundant bridges might have a problem with _____ in the system.

- ▶ **Loop [Click here for detail](#)**
- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Question No: 4(M a r k s: 1)

A Bridge can _____

- ▶ Filter a frame
- ▶ Forward a frame
- ▶ Extend a LAN
- ▶ **Do all the [Click here for detail](#)**

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Question No: 5(M a r k s: 1)

_____ is used for typical data applications (where the data rate may be unknown and bursty) and allows use of whatever bandwidth is available at a given time.

- ▶ Constant Bit Rate (CBR) service
- ▶ Variable Bit Rate (VBR) service
- ▶ **Available Bit Rate (ABR) service (Page 71)**
- ▶ None of the given

Question No: 6(M a r k s: 1)

ATM assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

- ▶ 21-bit
- ▶ 22-bit
- ▶ 23-bit
- ▶ **24-bit (Page 67)**

Question No: 7(M a r k s: 1)

_____ of TCP/IP layering model, corresponds to basic network hardware.

- ▶ **Physical Layer (Page 84)**
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

Question No: 8(M a r k s: 1)

_____ places the boundary between the second and third octets

- ▶ Class A
- ▶ **Class B (Computer Networks and Internets, page235)**
- ▶ Class C
- ▶ Class D

Question No: 9(M a r k s: 1)

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport (Page 101)**

Question No: 10(M a r k s: 1)

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by _____

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- ▶ IP
- ▶ None of the given
- ▶ **TCP (Page 123)**
- ▶ UDP

Question No: 11(M a r k s: 1)

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer (Page 84)**

Question No: 12(M a r k s: 1)

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address
- ▶ Source port
- ▶ **Destination Port (Computer Networks and Internets, page313)**
- ▶ None of the given

Question No: 13(M a r k s: 1)

_____ identifies the application program that sent the data.

- ▶ Destination Port
- ▶ **Source port (Computer Networks and Internets, page313)**
- ▶ Logical address
- ▶ None of the given

Question No: 14(M a r k s: 1)

Which of the following are interior routing protocols?

- ▶ RIP
- ▶ OSPF
- ▶ BGP
- ▶ **RIP and OSPF** [Click here for detail](#)

Question No: 15(M a r k s: 1)

The Border Gateway Protocol (BGP) uses _____ for all communication

- ▶ UDP
- ▶ **TCP** [Click here for detail](#)
- ▶ Both UDP and TCP
- ▶ None of the given

Question No: 16(M a r k s: 1)

_____measures distance in network hops, where each network between the source and destination counts as single hop.

- ▶ BGP
- ▶ OSPF
- ▶ **RIP (Page 138)**
- ▶ None of the given

Question No: 17(M a r k s: 1)

OSPF is based on_____

- ▶ Distance vector routing
- ▶ **Link state routing (Page 140)**
- ▶ Path vector routing
- ▶ Distance vector routing and Link state routing

Question No: 18(M a r k s: 1)

_____ performs local multicast and uses IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

- ▶ **Distance Vector Multicast Routing Protocol (DVMRP) (Page 144)**
- ▶ Core Based Trees (CBT)
- ▶ Protocol Independent Multicast_ Sparse Mode (PIM-SM)
- ▶ Protocol Independent Multicast _ Dense Mode (PIM-DM)

Question No: 19(M a r k s: 1)

The length of time required to send a variable length packet is variable and does not require a complicated interrupt scheme to detect completion of transmission.

- ▶ True
- ▶ **False (Page 72)**

Question No: 20(M a r k s: 1)

NEXT HEADER field in the base header defines type of header and it appears at end of fixed-size base header.

- ▶ **True (Page 112)**
- ▶ False

Question No: 21(M a r k s: 1)

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

- ▶ **True (Page 99)**
- ▶ False

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Question No: 22(M a r k s: 1)

Address mask defines how many bits of address are in suffix.

- ▶ True
- ▶ **False (Page 103)**

Question No: 23(M a r k s: 1)

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

- ▶ **True (Page 81)**
- ▶ False

Question No: 24(M a r k s: 1)

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ **True (Page 81)**

Question No: 25(M a r k s: 1)

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

- ▶ **itself (Page 87)**
- ▶ prefix
- ▶ suffix
- ▶ mask

Question No: 26(M a r k s: 1)

In which method of Address Resolution Protocol the protocol address independent of hardware address? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T, C
- ▶ D
- ▶ C
- ▶ **T, D (Page 97)**

Question No: 27(M a r k s: 1)

In which method of Address Resolution Protocol the protocol address is determined by hardware address? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T
- ▶ D
- ▶ **C (Page 97)**
- ▶ T, C

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Question No: 28(M a r k s: 1)

Reconstruction of original datagram is called reassembly.

▶ **True (Page 28)**

▶ False

Question No: 29(M a r k s: 1)

A computer needs a complete stack of protocols to run either a client or a server.

▶ **True (Computer Networks and Internets, page 344)**

▶ False

Question No: 30(M a r k s: 1)

TCP uses _____ mechanism to control the flow of data.

▶ door

▶ **window (Page 126)**

▶ acknowledgment

▶ retransmission

FINAL TERM EXAMINATION
Spring 2010
CS610- Data Communication

Question No: 1 (Marks: 1) - Please choose one

In Direct point to point communication adding the Nth computer requires----- new connections.

▶ None of the given

▶ N^2

▶ **N-1 (Page 23)**

▶ $(N^2 - N)/2$

Question No: 2 (Marks: 1) - Please choose one

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

▶ **LAN (Page 4)**

▶ WAN

▶ MAN

▶ None of the given

Question No: 3 (Marks: 1) - Please choose one

The third field of the header consists of ----- bit Ethernet frame type.

- ▶ 48
- ▶ 32
- ▶ **16** [Click here for detail](#)
- ▶ 8

Question No: 4 (Marks: 1) - Please choose one

The maximum size of an Ethernet segment is _____

- ▶ 250 meters
- ▶ **500 meters** [Click here for detail](#)
- ▶ 700 meters
- ▶ None of the given

Question No: 5 (Marks: 1) - Please choose one

The network with Throughput T and Delay D has a total ----- bits in transit at a time.

- ▶ D + T
- ▶ D – T
- ▶ **D X T** ([Computer Networks and Internets, page203](#))
- ▶ D / T

Question No: 6 (Marks: 1) - Please choose one

_____ places the boundary between the first and second octets

- ▶ **Class A** ([Computer Networks and Internets, page235](#))
- ▶ Class B
- ▶ Class C
- ▶ Class D

Question No: 7 (Marks: 1) - Please choose one

Router detects datagram ----- than network MTU and then it splits into pieces and each piece is -----than outbound network MTU.

- ▶ **Larger, smaller** ([Page 108](#))
- ▶ Larger, larger
- ▶ Smaller, larger
- ▶ Smaller, smaller

Question No: 9 (Marks: 1) - Please choose one

Connectionless service, Message-Oriented protocol, best-effort delivery service, arbitrary interaction & operating system independent are the characteristics of _____

- ▶ TCP
- ▶ **UDP (Page 120)**
- ▶ IP
- ▶ None of the given

Question No: 10 (Marks: 1) - Please choose one

----- provide Application to application communication it also called end to end communication

- ▶ IP
- ▶ **TP (Page 119)**
- ▶ RIP
- ▶ None of the given

Question No: 11 (Marks: 1) - Please choose one

A routing table contains_____

- ▶ The destination network ID
- ▶ The hop count to reach the network
- ▶ **The router ID of the next hop (Page 102)**
- ▶ All of the given

Question No: 12 (Marks: 1) - Please choose one

Which of the following protocols allows the sender and receiver to enforce policies.

- ▶ RIP
- ▶ OSPF
- ▶ **BGP (Reference Book 347)**
- ▶ RIP and OSPF

Question No: 13 (Marks: 1) - Please choose one

_____measures distance in network hops, where each network between the source and destination counts as single hop.

- ▶ BGP
- ▶ OSPF
- ▶ **RIP (Page 138)**
- ▶ Non of these

Question No: 14 (Marks: 1) - Please choose one

_____ includes a 32-bits address mask with each address, which allows the address to be classful, classless, or subnetted.

- ▶ RIP
- ▶ **OSPF (Page 140)**
- ▶ BGP
- ▶ None of the given

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Question No: 15 (Marks: 1) - Please choose one

One repeater -----, two repeaters ----- the maximum cable length limitation.

- ▶ **Double, triple** (Page 49)
- ▶ Double, 4 time
- ▶ half, triple
- ▶ Double, half

Question No: 16 (Marks: 1) - Please choose one

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- ▶ **True** (Page 117)
- ▶ False

Question No: 17 (Marks: 1) - Please choose one

Like most application programs, a client and server use a transport protocol to communicate.

- ▶ **True** (Page 146)
- ▶ False

Question No: 18 (Marks: 1) - Please choose one

Mapping between a protocol address and a hardware address is called Address Resolution.

- ▶ **True** (Page 93)
- ▶ False

Question No: 19 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ **False** (Page 103)

Question No: 20 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

- ▶ True
- ▶ **False** (Page 81)

Question No: 21 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ **True** (Page 81) rep

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Question No: 22 (Marks: 1) - Please choose one

Router detects datagram-----than network MTU

- ▶ **Larger (Page 108) rep**
- ▶ Smaller
- ▶ None of given
- ▶ Equal

Question No: 23 (Marks: 1) - Please choose one

Information can flow in either or both direction between

- ▶ Clients
- ▶ **Clients and servers (Computer Networks and Internets, page 344)**
- ▶ Servers
- ▶ None of given

Question No: 24 (Marks: 1) - Please choose one

On of the design goals for unicast route propagation is _____.

- ▶ consistency
- ▶ inconsistency
- ▶ **stability (Computer Networks and Internets, page 344)**
- ▶ dynamic addressing

Question No: 25 (Marks: 1) - Please choose one

IPV6 address consists of _____

- ▶ 32 Bits
- ▶ 64 Bits
- ▶ **128 Bits (Page 128)**
- ▶ none of the given

Question No: 26 (Marks: 1) - Please choose one

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- ▶ **True (Page 120)**
- ▶ False

Question No: 27 (Marks: 1) - Please choose one

In case TCP, retransmission, acknowledgment from a computer on LAN are expected to arrive within

- ▶ Seconds
- ▶ Micro seconds
- ▶ **Milliseconds (Click here for detail)**
- ▶ Nanoseconds

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Question No: 28 (Marks: 1) - Please choose one

Twice NAT is another variant of NAT. it is used with site that runs server. In this process NAT box is connected to Domain Name.

- ▶ **True (Page 131)**
- ▶ False

Question No: 29 (Marks: 1) - Please choose one

A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology
- ▶ **Ring Topology (Page 25)**
- ▶ Bus Topology
- ▶ None of the given

Question No: 30 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ **software (Page 93)**
- ▶ operating system
- ▶ internet

FINAL TERM EXAMINATION

Fall 2008

CS610- Computer Network

Question No: 1 (Marks: 1) - Please choose one

In Direct point to point communication adding the Nth computer requires----- new connections.

- ▶ None of the given
- ▶ N2
- ▶ **N-1 (Page 23)**
- ▶ $(N^2 - N)/2$

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Question No: 2 (Marks: 1) - Please choose one

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ **Star and Tree (Page 5)**
- ▶ None of the given

Question No: 3 (Marks: 1) - Please choose one

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

- ▶ **LAN (Page 4)**
- ▶ WAN
- ▶ MAN
- ▶ None of the given

Question No: 4 (Marks: 1) - Please choose one

Hardware that calculates a CRC uses two simple components.

- ▶ AND unit and XOR unit
- ▶ **Shift register and XOR unit (Page 20)**
- ▶ Shift register and AND unit
- ▶ None of the given

Question No: 5 (Marks: 1) - Please choose one

CRC can detect more errors than a simple checksum.

- ▶ **true (Computer Networks and Internets, page 80)**
- ▶ false

Question No: 6 (Marks: 1) - Please choose one

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps
- ▶ 100 Mbps
- ▶ **1000 Mbps Click here for detail**
- ▶ None of the given

Question No: 7 (Marks: 1) - Please choose one

Formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ **10 Base T (Page 43)**
- ▶ None of the given

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Question No: 8 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- ▶ **RJ-45, 10 Base T**
- ▶ RJ-45, 10 Base 5
- ▶ **BNC, 10 Base 2 (cs610 reference book Page 201)**
- ▶ BNC, 10 Base T

Question No: 9 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with _____ in the system.

- ▶ **Loop** [Click here for detail](#) **rep**
- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Question No: 10 (Marks: 1) - Please choose one

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- ▶ Greedy algorithm
- ▶ Distance vector algorithm
- ▶ **Dijkstra's algorithm (Computer Networks and Internets, page 112)**
- ▶ Non of the given

Question No: 11 (Marks: 1) - Please choose one

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ **Connectionless service paradigm (Computer Networks and Internets, page 112)**
- ▶ Connection-oriented service paradigm
- ▶ Both Connectionless and Connection-oriented service paradigm
- ▶ None of the given

Question No: 12 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer (Page 84) rep**

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Question No: 13 (Marks: 1) - Please choose one

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ **32-bit (Page 85)**
- ▶ 24-bit
- ▶ None of the given

Question No: 14 (Marks: 1) - Please choose one

The address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- ▶ **prefix , suffix (Page 85)**
- ▶ suffix , prefix
- ▶ suffix , suffix
- ▶ None of the given

Question No: 15 (Marks: 1) - Please choose one

_____ places the boundary between the first and second octets

- ▶ **Class A (Computer Networks and Internets, page 235)**
- ▶ Class B
- ▶ Class C
- ▶ Class D

Question No: 16 (Marks: 1) - Please choose one

_____ places the boundary between the third and fourth octets.

- ▶ Class A
- ▶ Class B
- ▶ **Class C (Computer Networks and Internets, page 235)**
- ▶ Class D

Question No: 17 (Marks: 1) - Please choose one

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ **FLAGS (Click here for detail)**
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ None of the given

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Question No: 18 (Marks: 1) - Please choose one

_____ provides connectionless service.

- ▶ TCP
- ▶ **UDP (Page 120)**
- ▶ IP
- ▶ None of the given

Question No: 19 (Marks: 1) - Please choose one

UDP and TCP are both_____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport (Page 101) rep**

Question No: 20 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

- ▶ IP
- ▶ None of the given
- ▶ **TCP (Page 123) rep**
- ▶ UDP

Question No: 21 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer (Page 84) rep**

Question No: 22 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address
- ▶ Source port
- ▶ **Destination Port (Computer Networks and Internets, page313) rep**
- ▶ None of the given

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Question No: 23 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

- ▶ DestinationPort
- ▶ **Source port** (Computer Networks and Internets, page313) rep
- ▶ Logical address
- ▶ None of the given

Question No: 24 (Marks: 1) - Please choose one

The Border Gateway Protocol (BGP) uses _____ for all communication

- ▶ UDP
- ▶ **TCP** [Click here for detail](#) rep
- ▶ Both UDP and TCP
- ▶ None of the given

Question No: 25 (Marks: 1) - Please choose one

Which of the following protocols allows the sender and receiver to enforce policies.

- ▶ RIP
- ▶ OSPF
- ▶ **BGP** (Reference Book 347) rep
- ▶ RIP and OSPF

Question No: 26 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP** (Computer Networks and Internets, page332)
- ▶ None of the given

Question No: 27 (Marks: 1) - Please choose one

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- ▶ **True (Page 117)**
- ▶ False

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Question No: 28 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ **software (Page 93) rep**
- ▶ operating system
- ▶ internet

Question No: 29 (Marks: 1) - Please choose one

These packets serve same purpose on _____ as frames on _____

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ **Internet, LAN (Page 101)**

Question No: 30 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ **False (Page 103) rep**

Question No: 31 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

- ▶ True
- ▶ **False (Page 81) rep**

Question No: 32 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

- ▶ **True (Page 81) rep**
- ▶ False

Question No: 33 (Marks: 1) - Please choose one

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

- ▶ **itself (Page 87)**
- ▶ prefix
- ▶ suffix
- ▶ mask

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Question No: 34 (Marks: 1) - Please choose one

Find the class of the address.

10100111 11011011 10001011 01101111

- ▶ A
- ▶ **B (Computer Networks and Internets, page 122)**
- ▶ E
- ▶ C

Question No: 35 (Marks: 1) - Please choose one

Find the class of the address:

11110011 10011011 11111011 00001111

- ▶ A
- ▶ C
- ▶ **E (Computer Networks and Internets, page 122)**
- ▶ B

Question No: 36 (Marks: 1) - Please choose one

In which method of Address Resolution Protocol the protocol address is determined by hardware address?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T
- ▶ D
- ▶ **C (Page 97) rep**
- ▶ T, C

Question No: 37 (Marks: 1) - Please choose one

Which method of Address Resolution Protocol requires hardware broadcast?

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

- ▶ **D (Page 97)**
- ▶ T
- ▶ C
- ▶ T, D

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Question No: 38 (Marks: 1) - Please choose one

Which method of Address Resolution Protocol resolution with minimum delay?

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

- ▶ T, D
- ▶ c
- ▶ T
- ▶ **T, C (Page 97)**

Question No: 39 (Marks: 1) - Please choose one

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

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

- ▶ T, C
- ▶ T
- ▶ C
- ▶ **D (Page 97)**

Question No: 40 (Marks: 1) - Please choose one

On of the design goals for unicast route propagation is _____.

- ▶ Consistency
- ▶ inconsistency
- ▶ **stability (Computer Networks and Internets, page 344) rep**
- ▶ dynamic addressing

Question No: 41 (Marks: 1) - Please choose one

Propagation multicast routing information differs dramatically from unicast route propagation?

- ▶ **True (Computer Networks and Internets, page 335)**
- ▶ False

Question No: 42 (Marks: 1) - Please choose one

The IP multicast abstraction allows an application running on an arbitrary computer to leave a multicast group at any time. While _____ application on a computer remain a member of a group.

- ▶ One or more
- ▶ only one
- ▶ no
- ▶ many

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Question No: 43 (Marks: 1) - Please choose one

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

- ▶ True
- ▶ **False (Computer Networks and Internets, page 329)**

Question No: 44 (Marks: 1) - Please choose one

In IPv6 the type of address used for collection of computers with same prefix. Are known as_____.

- ▶ Anycast
- ▶ Unicast
- ▶ Multicast
- ▶ **Non of the given (Page 114)**

Question No: 45 (Marks: 1) - Please choose one

Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. Are known as_____.

- ▶ Unicast
- ▶ Anycast
- ▶ **Multicast (Page 114)**
- ▶ Non of the given

Question No: 46 (Marks: 1) - Please choose one

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- ▶ **True (Page 120) rep**
- ▶ False

Question No: 47 (Marks: 1) - Please choose one

Reliability is the responsibility of the _____ layer

- ▶ Network
- ▶ Datalink
- ▶ **Transport (Page 123)**
- ▶ Application

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Question No: 48 (Marks: 1) - Please choose one

TCP uses _____ mechanism to control the flow of data.

- ▶ door
- ▶ **window (Page 126) rep**
- ▶ acknowledgment
- ▶ retransmission

TCP uses window mechanism to control the flow of data.

Question No: 49 (Marks: 1) - Please choose one

The time for acknowledgement to arrival of packet depends on.

- ▶ **Distance to destination and Current traffic conditions (Page 125)**
- ▶ Current traffic conditions
- ▶ Distance to destination
- ▶ non of these

Question No: 50 (Marks: 1) - Please choose one

FDDI can transmits data at a rate of -----

- ▶ **100 million bits per second (Page 31)**
- ▶ 10 million bits per second
- ▶ 1000 million bits per second
- ▶ None of the given

FINAL TERM EXAMINATION Fall 2008
CS610- Computer Network

Question No: 1 (Marks: 1)

Computer networks are often called ----- because they use packet technology.

- ▶ Ethernet
- ▶ Switch networks
- ▶ **Packet networks (Computer Networks and Internets, page 73)**
- ▶ None of the given

Question No: 2 (Marks: 1)

A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology
- ▶ **Ring Topology (Page 25) rep**
- ▶ Bus Topology

- ▶ None of the given

Question No: 3 (Marks: 1)

An -----method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.

- ▶ **Explicit frame type (Computer Networks and Internets, page 108)**
- ▶ Ideal frame type
- ▶ Implicit frame type
- ▶ None of the given

Question No: 4 (Marks: 1)

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the_____ specification.

- ▶ RJ-45, 10 Base T
- ▶ RJ-45, 10 Base 5
- ▶ **BNC, 10 Base 2 (cs610 reference book Page 201) rep**
- ▶ BNC, 10 Base T

Question No: 5 (Marks: 1)

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's_____

- ▶ Layer 2 source address
- ▶ Source node's physical address
- ▶ **Layer 2 destination address** [Click here for detail](#)
- ▶ Layer 3 destination address

Question No: 6 (Marks: 1)

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called_____

- ▶ Hierarchal address
- ▶ **Default route (Computer Networks and Internets, page 172)**
- ▶ Shortest path
- ▶ None of the given

Question No: 7 (Marks: 1)

_____ of TCP/IP layering model, corresponds to basic network hardware.

- ▶ **Physical Layer (Page 84) rep**
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

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Question No: 8 (Marks: 1)

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer (Page 84) rep**

Question No: 9 (Marks: 1)

_____ is called an end-to-end protocol because it provide a connection directly from an application on one computer to an application on a remote computer.

- ▶ IP
- ▶ UDP
- ▶ **TCP (Computer Networks and Internets, page 306)**
- ▶ None of the given

Question No: 10 (Marks: 1)

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP (Computer Networks and Internets, page332) rep**
- ▶ None of the given

Question No: 11 (Marks: 1)

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

- ▶ **Flood-and -Prune (Page 143)**
- ▶ Configuration-and -Tunneling
- ▶ Core-Based Discovery
- ▶ None of the given

Question No: 12 (Marks: 1)

Router that decrements TTL to __ sends ICMP time exceeded message, with router's address as source address

- ▶ 3
- ▶ 2
- ▶ 1
- ▶ **0 (Page 118)**

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Question No: 13 (Marks: 1)

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ **software (Page 93) rep**
- ▶ operating system
- ▶ internet

Question No: 14 (Marks: 1)

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

- ▶ **True (Page 99) rep**
- ▶ False

Question No: 15 (Marks: 1)

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

- ▶ **32, 48 (Page 98)**
- ▶ 24, 32
- ▶ 32, 64
- ▶ 32, 128

Question No: 16 (Marks: 1)

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ **True (Page 81) rep**

Question No: 17 (Marks: 1)

In which method of Address Resolution Protocol the protocol address is determined by hardware address? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

- ▶ T
- ▶ D
- ▶ **C (Page 97) rep**
- ▶ T, C

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Question No: 18 (Marks: 1)

The general form of an IP datagram is with a header followed by data. The header contains information that controls where and how the datagram is to be sent.

- ▶ **True (Computer Networks and Internets, page 332)**
- ▶ False

Question No: 19 (Marks: 1)

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

- ▶ True
- ▶ **False (Computer Networks and Internets, page 329)**

Question No: 20 (Marks: 1)

Which of the following is a correct representation of the IPv6?

- ▶ **105.220.136.100.255.255.255.255.0.0.18.128.140.10.255.255 (Page 114)**
- ▶ 105.220.136.100.255.255.255.256.0.0.18.128.140.10.255.255
- ▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255.255.256
- ▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255

FINAL TERM EXAMINATION
Fall 2008
CS610- Computer Network

Question No: 1 (Marks: 1) - Please choose one

The number of connections needed for N computer in direct point to point communication is equal to:

- ▶ **$(N^2 - N)/2$ (Page 23)**
- ▶ $N(N - 1)$
- ▶ N^2
- ▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

When an application----- data, it makes a copy of the data available to all other computers on the network.

- ▶ **Broadcasting** [Click here for detail](#)
- ▶ Multicasting
- ▶ Unicasting
- ▶ None of the given

Question No: 3 (Marks: 1) - Please choose one

Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64
- ▶ **48 (Computer Networks and Internets, page 109)**
- ▶ 32
- ▶ 8

Question No: 4 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with _____ in the system.

- ▶ **Loop (Click here for detail) rep**
- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Question No: 5 (Marks: 1) - Please choose one

The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area
- ▶ **Volume (Page 80) rep**
- ▶ Length
- ▶ None of the given

Question No: 6 (Marks: 1) - Please choose one

Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

- ▶ TCP
- ▶ **UDP (Page 110)**
- ▶ IP
- ▶ None of the given

Question No: 7 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by _____

- ▶ None of the given
- ▶ **TCP (Page 123) rep**
- ▶ UDP
- ▶ IP

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Question No: 8 (Marks: 1) - Please choose one

The process of using a routing table to select a next hop for a given datagram is called_____

- ▶ Encapsulation
- ▶ Reassembling
- ▶ **Routing or forwarding (Computer Networks and Internets, page 265)**
- ▶ None of the given

Question No: 9 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP (Computer Networks and Internets, page332) rep**
- ▶ None of the given

Question No: 10 (Marks: 1) - Please choose one

A multicast routing scheme in which the protocol software builds a delivery tree from a central point is called_____

- ▶ Distance Vector Multicast Routing Protocol (DVMRP)
- ▶ **Core Based Trees (CBT) (Page 114)**
- ▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*
- ▶ Protocol Independent Multicast_ *Dense Mode (PIM-DM)*

Question No: 11 (Marks: 1) - Please choose one

One repeater _____, two repeaters _____ the maximum cable length limitation.

- ▶ doubles, cancel
- ▶ **doubles, triple (Page 49) rep**
- ▶ square roots, cude roots
- ▶ and, triple

Question No: 12 (Marks: 1) - Please choose one

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

- ▶ postfix, Infix
- ▶ non of these
- ▶ Infix, prefix
- ▶ **prefix, suffix (Page 87)**

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Question No: 13 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

- ▶ True (Page 99) rep
- ▶ False

Question No: 14 (Marks: 1) - Please choose one

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

- ▶ 32, 48 (Page 98)
- ▶ 24, 32
- ▶ 32, 64
- ▶ 32, 128

Question No: 15 (Marks: 1) - Please choose one

End-to-end delivery service is connection oriented.

- ▶ True
- ▶ False (Page 101)

Question No: 16 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

- ▶ True
- ▶ False (Page 81) rep

Question No: 17 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ True (Page 81)

Question No: 18 (Marks: 1) - Please choose one

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

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

- ▶ T (Page 97)
- ▶ C
- ▶ D
- ▶ C, D

Question No: 19 (Marks: 1) - Please choose one

In which method of Address Resolution Protocol the protocol address is determined by hardware address?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T
- ▶ D
- ▶ **C**
- ▶ T, C

(Page 97) rep

Question No: 20 (Marks: 1) - Please choose one

We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- ▶ routing path
- ▶ routing metric
- ▶ **routing**
- ▶ switching

(Computer Networks and Internets, page330)

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FINALTERM EXAMINATION

Spring 2010

CS610- Computer Network

Ref No: 1578657

Time: 90 min

Marks: 60

Question No: 1 (Marks: 1) - Please choose one

A ----- relies on the hardware manufacturer to assign a unique physical address to each network interface.

▶ **Static addressing scheme**

- ▶ Configurable addressing scheme
- ▶ Dynamic addressing scheme
- ▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ **RJ-45, 10 Base T**

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

Question No: 3 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with _____ in the system.

▶ **Loop**

- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Question No: 4 (Marks: 1) - Please choose one

A Bridge can _____

- ▶ Filter a frame
- ▶ Forward a frame
- ▶ Extend a LAN
- ▶ **Do all the above**

Question No: 5 (Marks: 1) - Please choose one

_____ is used for typical data applications (where the data rate may be unknown and bursty) and allows use of whatever bandwidth is available at a given time.

- ▶ Constant Bit Rate (CBR) service
- ▶ Variable Bit Rate (VBR) service
- ▶ **Available Bit Rate (ABR) service**
- ▶ None of the given

Question No: 6 (Marks: 1) - Please choose one

ATM assigns each VC a _____ identifier that is divided into two parts to produce a hierarchy.

- ▶ 21-bit
- ▶ 22-bit
- ▶ 23-bit
- ▶ **24-bit**

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

- ▶ **Physical Layer**
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

Question No: 8 (Marks: 1) - Please choose one

_____ places the boundary between the second and third octets

- ▶ **Class A**
- ▶ Class B
- ▶ Class C
- ▶ Class D

Question No: 9 (Marks: 1) - Please choose one

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport**

Question No: 10 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by _____

- ▶ IP
- ▶ None of the given
- ▶ **TCP**
- ▶ UDP

Question No: 11 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

Question No: 12 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address

Source port

Logical address

None of the give

- ▶ Source port
- ▶ **Destination Port**
- ▶ None of the given

Question No: 13 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

- ▶ Destination Port
- ▶ **Source port**

- ▶ Logical address
- ▶ None of the given

Question No: 14 (Marks: 1) - Please choose one

Which of the following are interior routing protocols?

- ▶ **RIP**
- ▶ OSPF
- ▶ BGP
- ▶ RIP and OSPF

Question No: 15 (Marks: 1) –

www.vustudents.ning.com Please choose one

The Border Gateway Protocol (BGP) uses_____ for all communication

- ▶ UDP
- ▶ **TCP**
- ▶ Both UDP and TCP
- ▶ None of the given

Question No: 16 (Marks: 1) - Please choose one

_____measures distance in network hops, where each network between the source and destination counts as single hop.

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**

- ▶ None of the given

Question No: 17 (Marks: 1) - Please choose one

OSPF is based on-----

- ▶ Distance vector routing
- ▶ **Link state routing**
- ▶ Path vector routing
- ▶ Distance vector routing and Link state routing

Question No: 18 (Marks: 1) - Please choose one

_____ performs local multicast and uses IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

- ▶ **Distance Vector Multicast Routing Protocol (DVMRP)**
- ▶ Core Based Trees (CBT)
- ▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*
- ▶ Protocol Independent Multicast _ *Dense Mode (PIM-DM)*

Question No: 19 (Marks: 1) - Please choose one

The length of time required to send a variable length packet is variable and does not require a complicated interrupt scheme to detect completion of transmission.

- ▶ True
- ▶ **False**

Question No: 20 (Marks: 1) - Please choose one

NEXT HEADER field in the base header defines type of header and it appears at end of fixed-size base header.

- ▶ **True**

▶ False

Question No: 21 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ True

▶ False

Question No: 22 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

▶ True

▶ False

Question No: 23 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ True

▶ False

Question No: 24 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

▶ True

Question No: 25 (Marks: 1) - Please choose one

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ **itself**

▶ prefix

▶ suffix

▶ mask

Question No: 26 (Marks: 1) - Please choose one

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

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

▶ T, C

▶ D

▶ C

▶ **T, D**

Question No: 27 (Marks: 1) - Please choose one

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

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

▶ T

▶ D

▶ **C**

▶ T, C

Question No: 28 (Marks: 1) - Please choose one

Reconstruction of original datagram is called reassembly.

▶ True

▶ False

Question No: 29 (Marks: 1) - Please choose one

A computer needs a complete stack of protocols to run either a client or a server.

▶ True

▶ False

Question No: 30 (Marks: 1) - Please choose one

TCP uses _____ mechanism to control the flow of data.

▶ door

▶ window

▶ acknowledgment

▶ retransmission

.

Reply by [M.Tariq Malik](#) on December 31, 2011 at 9:57pm

Time: 120 min

Marks: 70

Question No: 1 (Marks: 1) - Please choose one

Computer networks are often called ----- because they use packet technology.

- ▶ Ethernet
- ▶ Switch networks
- ▶ Packet networks
- ▶ **None of the given**

Question No: 2 (Marks: 1) - Please choose one

A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology
- ▶ **Ring Topology**

- ▶ Bus Topology
- ▶ None of the given

In a ring topology each computer is connected to other thorough a ring

Question No: 3 (Marks: 1) - Please choose one

An -----method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.

- ▶ **Explicit frame type**
- ▶ Ideal frame type
- ▶ Implicit frame type
- ▶ None of the given

EXPLICIT FRAME TYPE:

In this type the identifying value is included with frame describes types of included data.

Question No: 4 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ **RJ-45, 10 Base T (reference not available)**

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

Question No: 5 (Marks: 1) - Please choose one

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's _____

- ▶ Layer 2 source address
- ▶ Source node's physical address
- ▶ **Layer 2 destination address (not confirm)**
- ▶ Layer 3 destination address

Question No: 6 (Marks: 1) - Please choose one

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called _____

- ▶ Hierarchal address
- ▶ **Default route**
- ▶ Shortest path
- ▶ None of the given

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called Default

route. The mechanism allows a single entry in a forwarding table to replace a long list of entries that have the same next hop value

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

▶ **Physical Layer**

▶ Network Interface Layer

▶ Internet Layer

▶ Transport Layer

LAYER 1:

Corresponds to basic network hardware layer in OSI

Question No: 9 (Marks: 1) - Please choose one

_____ is called an end-to-end protocol because it provide a connection directly from an application on one computer to an application on a remote computer.

▶ IP

▶ **UDP**

▶ TCP

▶ None of the given

UDP has the following characteristics.

It is an end-to-end protocol. It provides application-to-application communication.

Question No: 10 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ RIP

▶ None of the given

DISTANCE-VECTOR ROUTING:

- It is very simple to implement.
- Packet switch updates its own routing table first.
- It is used in RIP.

Question No: 11 (Marks: 1) - Please choose one

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

▶ Flood-and -Prune

▶ Configuration-and -Tunneling

▶ Core-Based Discovery

▶ None of the give006E

FLOOD-AND-PRUNE:

Flood-and-prune is ideal in a situation where the group is small and all members

Are attached to contiguous Local Area Networks.

Question No: 12 (Marks: 1) - Please choose one

Router that decrements TTL to ___ sends ICMP time exceeded message, with router's address as source address

▶ 3

▶ 2

▶ 1

▶ **0**

Router that decrements TTL to 0 sends ICMP time exceeded message, with router's address as source address

Question No: 13 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

▶ hardware

▶ **software**

▶ operating system

▶ internet

PROTOCOL ADDRESSES AND PACKET DELIVERY:

Protocol addresses are abstractions provided by software

Question No: 14 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ **True**

▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for

each binding is hopelessly inefficient

Question No: 15 (Marks: 1) - Please choose one

ARP is almost always used to bind a ____-bit IP address to a ____-bit Ethernet address.

▶ **32, 48**

- ▶ 24, 32
- ▶ 32, 64
- ▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 16 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ **True**

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

Question No: 17 (Marks: 1) www.vustudents.ning.com - Please choose one

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

Were "T" stands for Table lookup, "C" for Closed-form

- Header contains all information needed to deliver datagram to the destination

computer. It contains:

- Destination address
- Source address
- Identifier
- Other delivery information

CS610- Computer Network

Ref No: 325624

Time: 120 min

Marks: 70

Question No: 1 (Marks: 1) - Please choose one

The number of connections needed for N computer in direct point to point communication is equal to:

▶ $(N^2 - N)/2$

▶ $N(N - 1)$

▶ N^2

▶ None of the given

For 'n' computers connections in direct point to point communication = $(n^2 - n)/2$.

Question No: 2 (Marks: 1) - Please choose one

When an application----- data, it makes a copy of the data available to all other computers on the network.

- ▶ Broadcasting
- ▶ Multicasting
- ▶ Unicasting
- ▶ **None of the given (not sure)**

Question No: 3 (Marks: 1) - Please choose one

Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64
- ▶ **48**
- ▶ 32
- ▶ 8

Ethernet uses a 48-bit static addressing scheme

Question No: 4 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with _____ in the system.

- ▶ **Loop**
- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Reference not available

Question No: 5 (Marks: 1) - Please choose one

The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area

- ▶ Volume
- ▶ Length
- ▶ None of the given

It is computed as delay time multiplied by effective throughput. It measures amount of data that can be present in the network

Question No: 6 (Marks: 1) - Please choose one

Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

- ▶ TCP
- ▶ **UDP**

- ▶ IP
- ▶ None of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

Question No: 7 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection

startup and Graceful connection shutdown are the services provided by_____

- ▶ None of the given
- ▶ **TCP**

- ▶ UDP
- ▶ IP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- *Connection-oriented service*
- *Point-to-point*
- *Complete reliability*
- *Full-duplex communication*
- *Stream interface*
- *Reliable connection startup*
- *Graceful connection shutdown*

Question No: 8 (Marks: 1) - Please choose one

The process of using a routing table to select a next hop for a given datagram is called_____

- ▶ Encapsulation
- ▶ Reassembling
- ▶ **Routing or forwarding**
- ▶ None of the given

Reference not available

Question No: 9 (Marks: 1) www.vustudents.ning.com -

Please choose one

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

DISTANCE-VECTOR ROUTING:

- *It is very simple to implement.*
- *Packet switch updates its own routing table first.*
- *It is used in RIP.*

Question No: 10 (Marks: 1) - Please choose one

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

- ▶ Distance Vector Multicast Routing Protocol (DVMRP)
- ▶ **Core Based Trees (CBT)**
- ▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*
- ▶ Protocol Independent Multicast _ *Dense Mode (PIM-DM)*

CORE BASED TREES (CBT):

A multicast routing scheme in which the protocol software builds a delivery tree

from a central point.

Question No: 11 (Marks: 1) - Please choose one

One repeater _____, two repeaters _____ the maximum cable length limitation.

▶ doubles, cancel

▶ **doubles, triple**

▶ square roots, cube roots

▶ and, triple

One repeater doubles, two repeaters triple the maximum cable length limitation.

Question No: 12 (Marks: 1) - Please choose one

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

▶ postfix, Infix

▶ non of these

▶ Infix, prefix

▶ **prefix, suffix**

Whenever it handles a packet, IP software needs to separate the destination address into a prefix and suffix

Question No: 13 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ **True**

▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for

each binding is hopelessly inefficient.

Question No: 14 (Marks: 1) - Please choose one

ARP is almost always used to bind a ____-bit IP address to a ____-bit Ethernet address.

▶ **32, 48**

▶ 24, 32

▶ 32, 64

▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 15 (Marks: 1) - Please choose one

End-to-end delivery service is connection oriented.

▶ True

▶ **False**

End-to-end delivery service is connection less

Question No: 16 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

▶ True

▶ **False**

There is no single networking technology that is best for all needs

Question No: 17 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island.

Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

▶ **True**

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

Question No: 18 (Marks: 1) - Please choose one

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

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

Features	Types of Resolution	<u>▶ T</u>
Use full with any hardware	T	▶ C
Address change affects all hosts	T	▶ D
Protocol address is determined by hardware address	C	▶ C, D

Question No: 19 (Marks: 1) - Please choose one

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

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

Features	Types of Resolution	
Use full with any hardware	T	▶ T
Address change affects all hosts	T	▶ D
Protocol address is determined by hardware address	C	▶ <u>C</u>
		▶ T, C

Question No: 20 (Marks: 1) - Please choose one

We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- ▶ routing path
- ▶ **routing metric**
- ▶ routing switching

▶ [Reply](#)

• [Message](#)



[Permalink](#) Reply by [M.Tariq Malik](#) on December 31, 2011 at 9:59pm

FINAL TERM EXAMINATION

Fall 2008

CS610- Computer Network

Question No: 1 (Marks: 1) - Please choose one

In Direct point to point communication adding the Nth computer requires----- new connections.

- ▶ None of the given
- ▶ N2
- ▶ **N-1**
- ▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires N-1 new connections .(P# 23)

Question No: 2 (Marks: 1) - Please choose one

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ **Star and Tree**
- ▶ None of the given

POINT-TO-POINT:

In *Point-to-Point* topology there are two topologies.

- 1) STAR topology
- 2) TREE topology

Question No: 3 (Marks: 1) - Please choose one

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

- ▶ **LAN**

- ▶ WAN
- ▶ MAN
- ▶ None of the given

In LAN network occupies the smaller area like a room a floor or a building.(P# 4)

It identifies an individual computer on the network.

Question No: 15 (Marks: 1) - Please choose one

_____ places the boundary between the first and second octets

- ▶ **Class A**
- ▶ Class B
- ▶ Class C
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

Question No: 16 (Marks: 1) - Please choose one

_____ places the boundary between the third and fourth octets.

- ▶ Class A
- ▶ Class B
- ▶ **Class C**
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

Question No: 17 (Marks: 1) - Please choose one

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ **None of the given**

FRAGMENTATION:

IP uses fragmentation i.e. datagrams can be split into pieces to fit in network with small MTU. Each fragment is an independent datagram. It includes all header fields. Bit in header indicates that the datagram is a fragment

Question No: 18 (Marks: 1) - Please choose one

_____ provides connectionless service.

- ▶ TCP
- ▶ **UDP**
- ▶ IP
- ▶ None of the given

UDP has the following characteristics.

- It is an end-to-end protocol. It provides application-to-application communication.
- It provides connectionless service.
- It is a Message-Oriented protocol.
- It uses best-effort delivery service.
- It follows arbitrary interaction.
- It is operating system independent

Question No: 19 (Marks: 1) - Please choose one

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport**

Question No: 20 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by _____

- ▶ IP
- ▶ None of the given
- ▶ **TCP**
- ▶ UDP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- Connection-oriented service
- Point-to-point
- Complete reliability
- Full-duplex communication
- Stream interface
- Reliable connection startup
- Graceful connection shutdown

Question No: 21 (Marks: 1) - Please choose one

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

- ▶ Physical Layer

- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer

Question No: 22 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address
- ▶ Source port
- ▶ **Destination Port**
- ▶ None of the given

FieldDestinationPort identifies which application program on receiving computer should receive the data. While field source port identifies the application programs that sent the data. (reference from E-books)

Question No: 23 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

- ▶ DestinationPort
- ▶ **Source port**
- ▶ Logical address
- ▶ None of the given

FieldDestinationPort identifies which application program on receiving computer should receive the data. While field source port identifies the application programs that sent the data. (reference from E-books)

Question No: 24 (Marks: 1) - Please choose one

The Border Gateway Protocol (BGP) uses _____ for all communication

▶ UDP

▶ **TCP**

▶ Both UDP and TCP

▶ None of the given

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

Question No: 25 (Marks: 1) - Please choose one

Which of the following protocols allows the sender and receiver to enforce policies.

▶ RIP

▶ OSPF

▶ BGP

▶ RIP and OSPF

Question No: 26 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ **RIP**

▶ None of the given

ROUTING INFORMATION PROTOCOL (RIP):

It has the following characteristics:

"It is used for routing within an autonomous system (IGP).

"Hop Count Metric: RIP measures distance in network hops, where each network

between the source and destination counts as a single hop.

"It uses UDP for all message transmissions.

"RIP is used over LAN. Version 1 of RIP uses hardware broadcast and version 2 allows

delivery via multicast.

"It can be used to advertise default route propagation. An organization can use RIP to

install a default route in each router.

"It uses distance vector algorithm.

Question No: 27 (Marks: 1) - Please choose one

ICMP message transport is acted upon by getting ICMP encrypted in IP.

▶ **True**

▶ False

ICMP message transport is acted upon by getting ICMP encapsulated in IP (P# 117)

Question No: 28 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

▶ hardware

▶ **software**

▶ operating system

▶ internet

Protocol addresses are abstractions provided by software

Question No: 29 (Marks: 1) - Please choose one

These packets serve same purpose on _____ as frames on

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ **Internet, LAN**

VIRTUAL PACKETS:

These packets serve same purpose in Internet as frames on LAN

Question No: 30 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ **False**

Address mask defines how many bits of address are in prefix.

Prefix defines how much of address used to identify network.

Question No: 31 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

- ▶ True
- ▶ **False**

There is no single networking technology that is best for all needs

Question No: 32 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

- ▶ **True**
- ▶ False

The chief problems with multiple networks are as follows:

- A computer attached to a given network can only communicate with other

computers attached to the same network.

Question No: 33 (Marks: 1) - Please choose one

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

- ▶ **itself**
- ▶ prefix
- ▶ suffix
- ▶ mask

Classful IP addresses are self-identifying because the class of the address can be computed from the address itself

Question No: 34 (Marks: 1) - Please choose one

Find the class of the address.

10100111 11011011 10001011 01101111

- ▶ A
- ▶ **B**
- ▶ E
- ▶ C

Reference table handouts P # 87

Question No: 35 (Marks: 1) - Please choose one

Find the class of the address:

11110011 10011011 11111011 00001111

- ▶ A
- ▶ C
- ▶ **E**
- ▶ B

Reference table handouts P # 87

Question No: 36 (Marks: 1) - Please choose one

In which method of Address Resolution Protocol the protocol

address is determined by hardware

address? www.vustudents.ning.com _

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

- ▶ T
- ▶ D
- ▶ C
- ▶ T, C

Reference table handouts P # 97

Question No: 37 (Marks: 1) - Please choose one

Which method of Address Resolution Protocol requires hardware broadcast?

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

- ▶ D
- ▶ T
- ▶ C
- ▶ T, D

Reference table handouts P # 97

Question No: 38 (Marks: 1) - Please choose one

Which method of Address Resolution Protocol resolution with minimum delay?

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

- ▶ T, D
- ▶ c
- ▶ T
- ▶ T, C

Reference table handouts P # 97

Question No: 39 (Marks: 1) - Please choose one

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?

- ▶ T, C
- ▶ T
- ▶ C
- ▶ **D**

Reference table handouts P # 97

Question No: 40 (Marks: 1) - Please choose one

One of the design goals for unicast route propagation is

- ▶ Consistency
- ▶ inconsistency
- ▶ **stability**
- ▶ dynamic addressing

One of the design goals for unicast route propagation is stability—continual changes in route are undesirable because they lead to higher jitter and datagram arriving out of order. Thus, once a unicast routing protocol finds a shortest path, it usually retains the route until a failure makes the path unusable. (Reference from E-book)

Question No: 41 (Marks: 1) - Please choose one

Propagation multicast routing information differs dramatically from unicast route propagation?

- ▶ **True**
- ▶ False

Propagating multicast routing information differs dramatically from

unicast route propagation. The difference arises because internet multicast allows dynamic group membership and autonomous senders

Question No: 42 (Marks: 1) - Please choose one

The IP multicast abstraction allows an application running on an arbitrary computer to leave a multicast group at any time. While _____ application on a computer remain a member of a group.

- ▶ One or more
- ▶ only one
- ▶ no
- ▶ many

Question No: 43 (Marks: 1) - Please choose one

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

- ▶ True
- ▶ **False**

To save traffic, an EGP summarize routing information from the autonomous system before passing it to another autonomous system. More important an EGP implements policy constraints that allow a system manager to determine exactly what information is released outside the organization. (Reference from E-book)

Question No: 44 (Marks: 1) - Please choose one

In IPv6 the type of address used for collection of computers with same prefix. Are known as _____.

- ▶ Anycast
- ▶ Unicast
- ▶ Multicast

► **Non of the given**

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix,

datagram is delivered to one out of cluster.

Question No: 45 (Marks: 1) - Please choose one

Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. Are known as_____.

- Unicast
- Anycast
- **Multicast**
- Non of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix,

datagram is delivered to one out of cluster.

Question No: 46 (Marks: 1) - Please choose one

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

- **True**
- False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

- Applications can depend on protocol to preserve data boundaries.

Question No: 47 (Marks: 1) - Please choose one

Reliability is the responsibility of the _____ layer

- ▶ Network
- ▶ Datalink
- ▶ **Transport**
- ▶ Application

Reliability is the responsibility of the Transport layer

Question No: 48 (Marks: 1) - Please choose one

TCP uses _____ mechanism to control the flow of data.

- ▶ door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

TCP uses window mechanism to control the flow of data.

Question No: 49 (Marks: 1) - Please choose one

The time for acknowledgement to arrival of packet depends on.

- ▶ **Distance to destination and Current traffic conditions**
- ▶ Current traffic conditions
- ▶ Distance to destination
- ▶ non of these

The time for acknowledgement to arrive depends on:

- Distance to destination

- Current traffic conditions

Question No: 50 (Marks: 1) - Please choose one

FDDI can transmits data at a rate of -----

- ▶ **100 million bits per second**
- ▶ 10 million bits per second
- ▶ 1000 million bits per second
- ▶ None of the given

FDDI: Fiber distributed data interconnect (FDDI) is another ring technology. Its most

important features are:

Total Question 40

30 MCQs

70 % mcqs coming from attached file

some mcqs given below

1) When an application----- data, it makes a copy of the data available to all other computers on the network.

▶ **Broadcasting**

- ▶ Multicasting
- ▶ Unicasting
- ▶ None of the given

2) Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64
- ▶ **48**
- ▶ 32
- ▶ 8

3) The product of delay and throughput measures the _____ of data that can be present on the network.

▶ Area

▶ **Volume (supposition)**

▶ Length

▶ None of the given

4) Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

▶ TCP

▶ **UDP**

▶ IP

▶ None of the given

5) _____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ **RIP**

▶ None of the given

6) Whenever it handles a packet, IP software needs to separate the destination address into a _____ and _____.

▶ postfix, Infix

▶ non of these

▶ Infix, prefix

▶ **prefix, suffix**

7) ARP is almost always used to bind a ____-bit IP address to a ____-bit Ethernet address.

▶ **32, 48**

▶ 24, 32

▶ 32, 64

▶ 32, 128

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

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

▶ T

▶ **C (Supposition)**

▶ D

▶ C, D

9) In which method of Address Resolution Protocol the protocol address is determined by hardware address?

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

▶ T

▶ D

▶ **C**

▶ T, C

10) We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

▶ routing path

▶ **routing metric**

- ▶ routing
- ▶ switching

11) A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology

▶ **Ring Topology**

- ▶ Bus Topology
- ▶ None of the given

12) An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ **RJ-45, 10 Base T**

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

13) _____ protocols of TCP/IP layering model specify how to ensure reliable transfer.

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ **Transport Layer**

14) _____ uses distance vector approach to define routing

- ▶ BGP

▶ OSPF

▶ RIP

▶ None of the given

final term solve paper cs610 current spring 2011



Published July 11, 2011 | By [Vuhelp](#)

Question No: 1 (Marks: 1) – Please choose one

Computer networks are often called _____ because they use packet technology.

- ▶ Ethernet
- ▶ Switch networks
- ▶ **Packet networks**
- ▶ None of the given

Question No: 2 (Marks: 1) – Please choose one

A network uses a _____arranges for computers to be connected in a closed loop.

- ▶ Star Topology
- ▶ **Ring Topology**
- ▶ Bus Topology
- ▶ None of the given

In a ring topology each computer is connected to other through a ring

Question No: 3 (Marks: 1) – Please choose one

An _____method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.

- ▶ **Explicit frame type**
- ▶ Ideal frame type
- ▶ Implicit frame type
- ▶ None of the given

EXPLICIT FRAME TYPE:

In this type the identifying value is included with frame describes types of included data.

Question No: 4 (Marks: 1) – Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- ▶ RJ-45, 10 Base T
- ▶ RJ-45, 10 Base 5
- ▶ **BNC, 10 Base 2**
- ▶ BNC, 10 Base T

Question No: 5 (Marks: 1) – Please choose one

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's_____

- ▶ Layer 2 source address
- ▶ Source node's physical address
- ▶ **Layer 2 destination address**
- ▶ Layer 3 destination address

Question No: 6 (Marks: 1) – Please choose one

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called_____

- ▶ Hierarchal address
- ▶ **Default route**
- ▶ Shortest path
- ▶ None of the given

Question No: 7 (Marks: 1) – Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

- ▶ **Physical Layer**
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 1:

Corresponds to basic network hardware layer in OSI

Question No: 8 (Marks: 1) – Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

Fourth layer which is transport layer will take care of reliable transfer

Question No: 9 (Marks: 1) – Please choose one

_____ is called an end-to-end protocol because it provide a connection directly from an application on one computer to an application on a remote computer.

- ▶ IP
- ▶ **UDP**
- ▶ TCP
- ▶ None of the given

UDP has the following characteristics.

It is an end-to-end protocol. It provides application-to-application communication.

<http://vuzs.net/>

Question No: 10 (Marks: 1) – Please choose one <http://www.vuzs.net/>

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**

- ▶ None of the given

DISTANCE-VECTOR ROUTING:

- It is very simple to implement.
- Packet switch updates its own routing table first.
- It is used in RIP

Question No: 11 (Marks: 1) – Please choose one

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

- ▶ **Flood-and -Prune**
- ▶ Configuration-and -Tunneling
- ▶ Core-Based Discovery
- ▶ None of the given

FLOOD-AND-PRUNE:

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

Question No: 12 (Marks: 1) – Please choose one

Router that decrements TTL to __ sends ICMP time exceeded message, with router's address as source address

- ▶ 3
- ▶ 2
- ▶ 1
- ▶ **0**

Router that decrements TTL to 0 sends ICMP time exceeded message, with router's address as source address

Question No: 13 (Marks: 1) – Please choose one

Protocol addresses are abstractions provided by _____. <http://www.vuzs.net/>

- ▶ hardware
- ▶ **software**
- ▶ operating system
- ▶ internet

PROTOCOL ADDRESSES AND PACKET DELIVERY:

Protocol addresses are abstractions provided by software

Question No: 14 (Marks: 1) – Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

- ▶ **True**
- ▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient

Question No: 15 (Marks: 1) – Please choose one

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

- ▶ **32, 48**
- ▶ 24, 32

- ▶ 32, 64
- ▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 16 (Marks: 1) – Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ True

Question No: 17 (Marks: 1) – Please choose one

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

Were “T” stands for Table lookup, “C” for Closed-form Computation and “D” for Data Exchange?

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

- ▶ T
- ▶ D
- ▶ C
- ▶ T, C

Question No: 18 (Marks: 1) – Please choose one

The general form of an IP datagram is with a header followed by data. The header contains information that controls where and how the datagram is to be sent.

- ▶ **True**

- ▶ False

Header contains all information needed to deliver datagram to the destination computer. It contains:

- Destination address
- Source address
- Identifier
- Other delivery information

Question No: 19 (Marks: 1) – Please choose one

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

- ▶ True
- ▶ **False**

Question No: 20 (Marks: 1) – Please choose one

Which of the following is a correct representation of the IPv6?

- ▶ **105.220.136.100.255.255.255.255.0.0.18.128.140.10.255.255**
- ▶ 105.220.136.100.255.255.255.256.0.0.18.128.140.10.255.255
- ▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255.255.256

A ----- relies on the hardware manufacturer to assign a unique physical address to each network interface.

- ▶ **Static addressing scheme**
- ▶ Configurable addressing scheme
- ▶ Dynamic addressing scheme
- ▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

- ▶ **RJ-45, 10 Base T**
- ▶ RJ-45, 10 Base 5

▶ BNC, 10 Base 2

▶ BNC, 10 Base T

Question No: 3 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with_____ in the system.

▶ **Loop**

▶ Filters

▶ Spanning Trees

▶ All given choices

Question No: 4 (Marks: 1) - Please choose one

A Bridge can _____

- ▶ Filter a frame
- ▶ Forward a frame
- ▶ Extend a LAN
- ▶ **Do all the above**

Question No: 5 (Marks: 1) - Please choose one

_____ is used for typical data applications (where the data rate may be unknown and bursty) and allows use of whatever bandwidth is available at a given time.

- ▶ Constant Bit Rate (CBR) service
- ▶ Variable Bit Rate (VBR) service
- ▶ **Available Bit Rate (ABR) service**
- ▶ None of the given

Question No: 6 (Marks: 1) - Please choose one

ATM assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

- ▶ 21-bit
- ▶ 22-bit
- ▶ 23-bit
- ▶ **24-bit**

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

- ▶ **Physical Layer**
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

Question No: 8 (Marks: 1) - Please choose one

_____ places the boundary between the second and third octets

▶ **Class A**

▶ Class B

▶ Class C

▶ Class D

Question No: 9 (Marks: 1) - Please choose one

UDP and TCP are both_____ layer protocols

▶ Physical

▶ Data link

▶ Network

▶ **Transport**

Question No: 10 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

▶ IP

▶ None of the given

▶ **TCP**

▶ UDP

Question No: 11 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

Question No: 12 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address
- Source port
- Logical address
- None of the given

- ▶ Source port
- ▶ **Destination Port**
- ▶ None of the given

Question No: 13 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

- ▶ Destination Port

- ▶ **Source port**

- ▶ Logical address

- ▶ None of the given

Question No: 14 (Marks: 1) - Please choose one

Which of the following are interior routing protocols?

- ▶ **RIP**

- ▶ OSPF

▶ BGP

▶ RIP and OSPF

Question No: 15 (Marks: 1) - Please choose one

The Border Gateway Protocol (BGP) uses_____ for all communication

▶ UDP

▶ **TCP**

▶ Both UDP and TCP

▶ None of the given

Question No: 16 (Marks: 1) - Please choose one

_____measures distance in network hops, where each network between the source and destination counts as single hop.

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

Question No: 17 (Marks: 1) - Please choose one

OSPF is based on-----

- ▶ Distance vector routing
- ▶ **Link state routing**
- ▶ Path vector routing
- ▶ Distance vector routing and Link state routing

Question No: 18 (Marks: 1) - Please choose one

_____ performs local multicast and uses IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

▶ **Distance Vector Multicast Routing Protocol (DVMRP)**

▶ Core Based Trees (CBT)

▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*

▶ Protocol Independent Multicast _ *Dense Mode (PIM-DM)*

Question No: 19 (Marks: 1) - Please choose one

The length of time required to send a variable length packet is variable and does not require a complicated interrupt scheme to detect completion of transmission.

▶ True

▶ False

Question No: 20 (Marks: 1) - Please choose one

NEXT HEADER field in the base header defines type of header and it appears at end of fixed-size base header.

▶ True

▶ False

Question No: 21 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ True

▶ False

Question No: 22 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

▶ True

▶ **False**

Question No: 23 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ **True**

▶ False

Question No: 24 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

▶ True

Question No: 25 (Marks: 1) - Please choose one

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ itself

▶ prefix

▶ suffix

▶ mask

Question No: 26 (Marks: 1) - Please choose one

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

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

▶ T, C

▶ D

▶ C

▶ T, D

Question No: 27 (Marks: 1) - Please choose one

In which method of Address Resolution Protocol the protocol address is determined by hardware address?
vuattach.ning.com

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

▶ T

▶ D

▶ C

▶ T, C

Question No: 28 (Marks: 1) - Please choose one

Reconstruction of original datagram is called reassembly.

▶ True

▶ False

Question No: 29 (Marks: 1) - Please choose one

A computer needs a complete stack of protocols to run either a client or a server.

▶ True

▶ False

Question No: 30 (Marks: 1) - Please choose one

TCP uses _____ mechanism to control the flow of data.

- ▶ door
- ▶ **window**
- ▶ acknowledgment
- ▶ retransmission

FINALTERM EXAMINATION

CS610- Computer Network

Time: 120 min

Marks: 70

Question No: 1 (Marks: 1) - Please choose one

The number of connections needed for N computer in direct point to point communication is equal to:

▶ $(N^2 - N)/2$

▶ $N(N - 1)$

▶ N^2

▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

When an application----- data, it makes a copy of the data available to all other computers on the network.

▶ **Broadcasting**

▶ Multicasting

▶ Unicasting

▶ None of the given

One repeater _____, two repeaters _____ the maximum cable length limitation.

- ▶ doubles, cancel
- ▶ doubles, triple
- ▶ square roots, cube roots
- ▶ and, triple

Question No: 12 (Marks: 1) - Please choose one

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

- ▶ postfix, Infix
- ▶ non of these
- ▶ Infix, prefix
- ▶ prefix, suffix

Ref No: 1578657

Time: 90 min

Marks: 60

Question No: 1 (Marks: 1) - Please choose one

_____ A
----- relies on the hardware manufacturer to assign a unique physical address to each network interface.

▶ **Static addressing scheme**

▶ Configurable addressing scheme

▶ Dynamic addressing scheme

▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

_____ An
interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ **RJ-45, 10 Base T**

▶ RJ-45, 10 Base 5

▶ BNC, 10 Base 2

▶ BNC, 10 Base T

Question No: 3 (Marks: 1) - Please choose one

_____ A
system with redundant bridges might have a problem with _____ in the system.

▶ **Loop**

▶ Filters

▶ Spanning Trees

▶ All given choices

Question No: 4 (Marks: 1) - Please choose one

A Bridge can _____

- ▶ Filter a frame
- ▶ Forward a frame
- ▶ Extend a LAN
- ▶ **Do all the above**

Question No: 5 (Marks: 1) - Please choose one

_____ is used for typical data applications (where the data rate may be unknown and bursty) and allows use of whatever bandwidth is available at a given time.

- ▶ Constant Bit Rate (CBR) service
- ▶ Variable Bit Rate (VBR) service
- ▶ **Available Bit Rate (ABR) service**
- ▶ None of the given

Question No: 6 (Marks: 1) - Please choose one

_____ ATM assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

- ▶ 21-bit
- ▶ 22-bit
- ▶ 23-bit
- ▶ **24-bit**

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

- ▶ **Physical Layer**
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

Question No: 8 (Marks: 1) - Please choose one

_____ places the boundary between the second and third octets

- ▶ **Class A**

- ▶ Class B
- ▶ Class C
- ▶ Class D

Question No: 9 (Marks: 1) - Please choose one

UDP and TCP are both_____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport**

Question No: 10 (Marks: 1) - Please choose one

_____ Conn
ection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

- ▶ IP
- ▶ None of the given

▶ **TCP**

▶ UDP

Question No: 11 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ **Transport Layer**

Question No: 12 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address

Source port

Logical address

None of the give

▶ Source port

▶ **Destination Port**

▶ None of the given

Question No: 13 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

▶ Destination Port

▶ **Source port**

▶ Logical address

▶ None of the given

Question No: 14 (Marks: 1) - Please choose one

_____ Whic
h of the following are interior routing protocols?

▶ **RIP**

▶ OSPF

▶ BGP

▶ RIP and OSPF

Question No: 15 (Marks: 1) -www.vustudents.ning.com Please choose one

_____ The
Border Gateway Protocol (BGP) uses_____ for all communication

▶ UDP

▶ **TCP**

▶ Both UDP and TCP

▶ None of the given

Question No: 16 (Marks: 1) - Please choose one

_____ measures distance in network hops, where each network between the source and destination counts as single hop.

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

Question No: 17 (Marks: 1) - Please choose one

_____ OSPF is based on-----

- ▶ Distance vector routing
- ▶ **Link state routing**
- ▶ Path vector routing
- ▶ Distance vector routing and Link state routing

Question No: 18 (Marks: 1) - Please choose one

_____ performs local multicast and uses IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

- ▶ **Distance Vector Multicast Routing Protocol (DVMRP)**
- ▶ Core Based Trees (CBT)
- ▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*
- ▶ Protocol Independent Multicast _ *Dense Mode (PIM-DM)*

Question No: 19 (Marks: 1) - Please choose one

The length of time required to send a variable length packet is variable and does not require a complicated interrupt scheme to detect completion of transmission.

- ▶ True
- ▶ **False**

Question No: 20 (Marks: 1) - Please choose one

NEX
T HEADER field in the base header defines type of header and it appears at end of fixed-size base header.

▶ True

▶ False

Question No: 21 (Marks: 1) - Please choose one

Altho
ugh message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ True

▶ False

Question No: 22 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

▶ True

▶ False

Question No: 23 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ True

▶ False

Question No: 24 (Marks: 1) - Please choose one

In
the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

▶ True

Question No: 25 (Marks: 1) - Please choose one

The
term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ itself

▶ prefix

▶ suffix

▶ mask

Question No: 26 (Marks: 1) - Please choose one

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

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

▶ T, C

▶ D

▶ C

▶ T, D

Question No: 27 (Marks: 1) - Please choose one

_____ In
which method of Address Resolution Protocol the protocol address is determined by hardware address?

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

▶ T

▶ D

▶ C

▶ T, C

Question No: 28 (Marks: 1) - Please choose one

_____ Reco
nstruction of original datagram is called reassembly.

▶ True

▶ False

Question No: 29 (Marks: 1) - Please choose one

computer needs a complete stack of protocols to run either a client or a server.

True

False

Question No: 30 (Marks: 1) - Please choose one

uses _____ mechanism to control the flow of data.

door

window

acknowledgment

retransmission

FINAL TERM EXAMINATION

Question No: 1 (Marks: 1) - Please choose one

Computer networks are often called ----- because they use packet technology.

Ethernet

Switch networks

Packet networks

None of the given

Question No: 2 (Marks: 1) - Please choose one

A network uses a -----arranges for computers to be connected in a closed loop.

Star Topology

Ring Topology

Bus Topology

None of the given

In a ring topology each computer is connected to other thorough a ring

Question No: 3 (Marks: 1) - Please choose one

An -----method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.

▶ **Explicit frame type**

- ▶ Ideal frame type
- ▶ Implicit frame type
- ▶ None of the given

EXPLICIT FRAME TYPE:

In this type the identifying value is included with frame describes types of included data.

Question No: 4 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ **RJ-45, 10 Base T (reference not available)**

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

Question No: 5 (Marks: 1) - Please choose one

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's _____

- ▶ Layer 2 source address
- ▶ Source node's physical address

▶ **Layer 2 destination address (not confirm)**

- ▶ Layer 3 destination address

Question No: 6 (Marks: 1) - Please choose one

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called _____

- ▶ Hierarchal address

▶ **Default route**

- ▶ Shortest path

- ▶ None of the given

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called Default route. The mechanism allows a single entry in a forwarding table to replace a long list of entries that have the same next hope value

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

_____ ▶ **Physical Layer**

- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 1:

Corresponds to basic network hardware layer in OSI

Question No: 8 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

The Internet layer in the TCP/IP reference model is responsible for transferring data between the source and destination computers

Question No: 9 (Marks: 1) - Please choose one

_____ is called an end-to-end protocol because it provide a connection directly from an application on one computer to an application on a remote computer.

- ▶ IP
- _____ ▶ **UDP**
- ▶ TCP
- ▶ None of the given

UDP has the following characteristics.

It is an end-to-end protocol. It provides application-to-application communication.

Question No: 10 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ **RIP**

▶ None of the given

DISTANCE-VECTOR ROUTING:

- It is very simple to implement.
- Packet switch updates its own routing table first.
- It is used in RIP.

Question No: 11 (Marks: 1) - Please choose one

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

▶ **Flood-and -Prune**

▶ Configuration-and -Tunneling

▶ Core-Based Discovery

▶ None of the give006E

FLOOD-AND-PRUNE:

Flood-and-prune is ideal in a situation where the group is small and all members

Are attached to contiguous Local Area Networks.

Question No: 12 (Marks: 1) - Please choose one

Router that decrements TTL to ___ sends ICMP time exceeded message, with router's address as source address

▶ 3

▶ 2

▶ 1

▶ **0**

Router that decrements TTL to 0 sends ICMP time exceeded message, with router's

address as source address

Question No: 13 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ **software**
- ▶ operating system
- ▶ internet

PROTOCOL ADDRESSES AND PACKET DELIVERY:

Protocol addresses are abstractions provided by software

Question No: 14 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

- ▶ **True**
- ▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient

Question No: 15 (Marks: 1) - Please choose one

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

- ▶ **32, 48**
- ▶ 24, 32
- ▶ 32, 64
- ▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 16 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

- ▶ False
- ▶ **True**

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

Question No: 17 (Marks: 1) www.vustudents.ning.com - Please choose one

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

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

- ▶ T
- ▶ D
- ▶ C
- ▶ T, C

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

Question No: 18 (Marks: 1) - Please choose one

The general form of an IP datagram is with a header followed by data. The header contains information that controls where and how the datagram is to be sent.

▶ True

▶ False

- Header contains all information needed to deliver datagram to the destination computer. It contains:
 - Destination address
 - Source address
 - Identifier
 - Other delivery information

Question No: 19 (Marks: 1) - Please choose one

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

- ▶ True
- ▶ False

"It provides routing among autonomous systems (EGP).

Question No: 20 (Marks: 1) - Please choose one

Which of the following is a correct representation of the IPv6?

- ▶ 105.220.136.100.255.255.255.0.0.18.128.140.10.255.255
 - ▶ 105.220.136.100.255.255.255.256.0.0.18.128.140.10.255.255
 - ▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255.255.256
 - ▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255
- 128-bit addresses unwidely in dotted decimal; requires 16 numbers:
105.220.136.100.255.255.255.255.0.0.18

FINALTERM EXAMINATION

Fall 2008

CS610- Computer Network

Ref No: 325624

Time: 120 min

Marks: 70

Question No: 1 (Marks: 1) - Please choose one

The number of connections needed for N computer in direct point to point communication is equal to:

- ▶ $(N^2 - N) / 2$
- ▶ $N(N - 1)$
- ▶ N^2
- ▶ None of the given

For 'n' computers connections in direct point to point communication = $(n^2 - n) / 2$.

Question No: 2 (Marks: 1) - Please choose one

When an application----- data, it makes a copy of the data available to all other computers on the network.

- ▶ Broadcasting
- ▶ Multicasting
- ▶ Unicasting
- ▶ None of the given (not sure)

Question No: 3 (Marks: 1) - Please choose one

Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64
- ▶ 48
- ▶ 32
- ▶ 8

Ethernet uses a 48-bit static addressing scheme

Question No: 4 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with_____ in the system.

- ▶ Loop
- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Reference not available

Question No: 5 (Marks: 1) - Please choose one

The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area
- ▶ Volume
- ▶ Length
- ▶ None of the given

It is computed as delay time multiplied by effective throughput. It measures amount of data that can be present in the network

Question No: 6 (Marks: 1) - Please choose one

Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

▶ TCP

▶ **UDP**

▶ IP

▶ None of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

Question No: 7 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by _____

▶ None of the given

▶ **TCP**

▶ UDP

▶ IP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- *Connection-oriented service*
- *Point-to-point*
- *Complete reliability*
- *Full-duplex communication*

- Stream interface
- Reliable connection startup
- Graceful connection shutdown

Question No: 8 (Marks: 1) - Please choose one

The process of using a routing table to select a next hop for a given datagram is called_____

- ▶ Encapsulation
- ▶ Reassembling
- ▶ **Routing or forwarding**
- ▶ None of the given

Reference not available

Question No: 9 (Marks: 1) www.vustudents.ning.com - Please choose one

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

DISTANCE-VECTOR ROUTING:

- It is very simple to implement.
- Packet switch updates its own routing table first.
- It is used in RIP.

Question No: 10 (Marks: 1) - Please choose one

A multicast routing scheme in which the protocol software builds a delivery tree from a central point is called_____

- ▶ Distance Vector Multicast Routing Protocol (DVMRP)
- ▶ **Core Based Trees (CBT)**
- ▶ Protocol Independent Multicast_ Sparse Mode (PIM-SM)
- ▶ Protocol Independent Multicast _ Dense Mode (PIM-DM)

CORE BASED TREES (CBT):

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

Question No: 11 (Marks: 1) - Please choose one

One repeater _____, two repeaters _____ the maximum cable length limitation.

▶ doubles, cancel

_____ ▶ **doubles, triple**

▶ square roots, cube roots

▶ and, triple

One repeater doubles, two repeaters triple the maximum cable length limitation.

Question No: 12 (Marks: 1) - Please choose one

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

▶ postfix, Infix

▶ non of these

▶ Infix, prefix

_____ ▶ **prefix, suffix**

Whenever it handles a packet, IP software needs to separate the destination address into a prefix and suffix

Question No: 13 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

_____ ▶ **True**

▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

Question No: 14 (Marks: 1) - Please choose one

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

▶ **32, 48**

▶ 24, 32

▶ 32, 64

▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 15 (Marks: 1) - Please choose one

End-to-end delivery service is connection oriented.

▶ True

▶ **False**

End-to-end delivery service is connection less

Question No: 16 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

▶ True

▶ **False**

There is no single networking technology that is best for all needs

Question No: 17 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

▶ **True**

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

Question No: 18 (Marks: 1) - Please choose one

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

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

- ▶ T
- ▶ C
- ▶ D
- ▶ C, D

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

Question No: 19 (Marks: 1) - Please choose one

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

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- ▶ C
- ▶ T, C

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

Question No: 20 (Marks: 1) - Please choose one

We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- ▶ routing path
- ▶ routing metric
- ▶ routing
- ▶ switching

We use the term routing metric to refer to a measure of the path that routing software use when choosing a route

CS610- Computer Network

Question No: 1 (Marks: 1) - Please choose one

In Direct point to point communication adding the Nth computer requires----- new connections.

- ▶ None of the given
- ▶ N2
- ▶ **N-1**
- ▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires N-1 new connections .(P# 23)

Question No: 2 (Marks: 1) - Please choose one

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ **Star and Tree**
- ▶ None of the given

POINT-TO-POINT:

In *Point-to-Point* topology there are two topologies.

- 1) STAR topology
- 2) TREE topology

Question No: 3 (Marks: 1) - Please choose one

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

Unicast: *It is used for single destination computer.*

Multicast: *It is used for multiple destinations; possibly not at same site.*

Cluster: *This type of address is used for collection of computers with same prefix,*

datagram is delivered to one out of cluster.

Question No: 45 (Marks: 1) - Please choose one

Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. Are known as_____.

- ▶ Unicast
- ▶ Anycast
- ▶ **Multicast**
- ▶ Non of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix,

datagram is delivered to one out of cluster.

Question No: 46 (Marks: 1) - Please choose one

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

▶ **True**

▶ False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

• *Applications can depend on protocol to preserve data boundaries.*

Question No: 47 (Marks: 1) - Please choose one

Reliability is the responsibility of the _____ layer

▶ Network

▶ Datalink

▶ **Transport**

▶ Application

Reliability is the responsibility of the Transport layer

Question No: 48 (Marks: 1) - Please choose one

TCP uses _____ mechanism to control the flow of data.

▶ door

▶ **window**

▶ acknowledgment

▶ retransmission

TCP uses window mechanism to control the flow of data.

Question No: 49 (Marks: 1) - Please choose one

The time for acknowledgement to arrival of packet depends on.

▶ **Distance to destination and Current traffic conditions**

▶ Current traffic conditions

▶ Distance to destination

▶ non of these

The time for acknowledgement to arrive depends on:

• *Distance to destination*

• *Current traffic conditions*

Question No: 50 (Marks: 1) - Please choose one

FDDI can transmit data at a rate of -----

▶ **100 million bits per second**

- ▶ 10 million bits per second
- ▶ 1000 million bits per second
- ▶ None of the given

FDDI: Fiber distributed data interconnect (FDDI) is another ring technology. Its most important features are:

It uses fiber optics between stations and transmits data at 100Mbps.

____▶ **C (Supposition)**

- ▶ D
- ▶ C, D

9) In which method of Address Resolution Protocol the protocol address is determined by hardware address?

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

- ▶ T
- ▶ D

____▶ **C**

- ▶ T, C

10) We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- ▶ routing path

____▶ **routing metric**

- ▶ routing
- ▶ switching

11) A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology

► **Ring Topology**

- Bus Topology
- None of the given

12) An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

► **RJ-45, 10 Base T**

- RJ-45, 10 Base 5
- BNC, 10 Base 2
- BNC, 10 Base T

13) _____ protocols of TCP/IP layering model specify how to ensure reliable transfer.

- Physical Layer
- Network Interface Layer
- Internet Layer

► **Transport Layer**

14) _____ uses distance vector approach to define routing

- BGP
- OSPF

► **RIP**

- None of the given

Fall 2008

1) When an application----- data, it makes a copy of the data available to all other computers on the network.

▶ **Broadcasting**

- ▶ Multicasting
- ▶ Unicasting
- ▶ None of the given

2) Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64

▶ **48**

- ▶ 32
- ▶ 8

3) The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area

▶ **Volume (supposition)**

- ▶ Length
- ▶ None of the given

4) Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

- ▶ TCP

▶ **UDP**

- ▶ IP
- ▶ None of the given

5) _____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF

▶ RIP

▶ None of the given

6) Whenever it handles a packet, IP software needs to separate the destination address into a _____ and _____.

▶ postfix, Infix

▶ non of these

▶ Infix, prefix

▶ prefix, suffix

7) ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

▶ 32, 48

▶ 24, 32

▶ 32, 64

▶ 32, 128

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

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

▶ T

Question No: 1 (Marks: 1) - Please choose one

_____ encapsulates IP datagram as data area in hardware frame.

1. **Network Interface Layer**
2. Datalink Layer
3. Network Layer
4. None of the given

Question No: 2 (Marks: 1) - Please choose one

_____ field is used to identify a specific path through the network

1. FLOW LABEL
2. TRAFFIC CLASS
3. **Both a and b**
4. none of the given

Question No: 3 (Marks: 1) - Please choose one

IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

1. **96**
2. 100
3. 120
4. none of the given

Question No: 4 (Marks: 1) - Please choose one

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a _____ Ethernet address.

1. **Answer (48bit)**

Question No: 5 (Marks: 1) - Please choose one

For _____, information about forwarding is stored in a routing table, which is initialized at system initialization and must be updated as network topology changes.

1. **Efficiency**

2. Security
3. Accuracy
4. Anomalies

Question No: 6 (Marks: 1) - Please choose one

_____ is a technique used to Limit datagram size to small MTU of any network

1. Segmentation
2. **Fragmentation**
3. Encapsulation
4. none of the given

Question No: 7 (Marks: 1) - Please choose one

Class A mask is 255.0.0.0 which is used for _____

1. Unicasting
2. Multicasting
3. **Subnetting**
4. All of the given

Question No: 8 (Marks: 1) - Please choose one

When one computer sends an ARP message to another the message travels inside the hardware frame. Technically, placing a message inside a frame for transport is not called encapsulation.

1. True
2. **False**

Question No: 9 (Marks: 1) - Please choose one

Which one of these is not a main feature of connectionless service:

1. It includes extension of LAN abstraction.
It has

MC100201881 : Ayesha Rafi

Time
Left

85
sec(
s)

Quiz Start Time: 11:47 AM

Question # 1 of 15 (Start time: 11:47:45 AM)

Total Marks: 1

Preliminary version of IP was called _____.

▶ Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

87
sec(
s)

Quiz Start Time: 11:47 AM

Question # 2 of 15 (Start time: 11:48:31 AM)

Total Marks: 1

_____ places the boundary between the second and third octets

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

88
sec(
s)

Quiz Start Time: 11:47 AM

Question # 3 of 15 (Start time: 11:49:04 AM)

Total Marks: 1

For _____, information about forwarding is stored in a routing table, which is initialized at system initialization and must be updated as network topology changes.

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

87
sec(
s)

Quiz Start Time: 11:47 AM

Question # 4 of 15 (**Start time: 11:49:37 AM**)

Total Marks: 1

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

 **Select correct option:**



MC100201881 : Ayesha Rafi

Time
Left

82
sec(
s)

Quiz Start Time: 11:47 AM

Question # 5 of 15 (**Start time: 11:50:23 AM**)

Total Marks: 1

_____ places the boundary between the first and second octets

 **Select correct option:**



MC100201881 : Ayesha Rafi

Time Left	77 sec(s)
-----------	-----------

Quiz Start Time: 11:47 AM

Question # 6 of 15 (Start time: 11:50:52 AM)

Total Marks: 1

Mapping between a protocol address and a hardware address is called Address Resolution.

 Select correct option:



MC100201881 : Ayesha Rafi

Time Left	78 sec(s)
-----------	-----------

Quiz Start Time: 11:47 AM

Question # 7 of 15 (Start time: 11:51:38 AM)

Total Marks: 1

TCP/IP defines the term_____ to refer any computer system that connects to an internet and runs applications

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

86
sec(
s)



Quiz Start Time: 11:47 AM

Question # 8 of 15 (Start time: 11:52:42 AM)

Total Marks: 1

_____ encapsulates IP datagram as data area in hardware frame.

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

86
sec(
s)



Quiz Start Time: 11:47 AM

Question # 9 of 15 (Start time: 11:53:17 AM)

Total Marks: 1

_____ contains all information needed to deliver datagram to the destination.

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

87
sec(
s)



Quiz Start Time: 11:47 AM

Question # 10 of 15 (Start time: 11:53:53 AM)

Total Marks: 1

The Internet service providers coordinate with the Internet assigned number authority to obtain their network numbers.

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

88
sec(
s)



Quiz Start Time: 11:47 AM

Question # 11 of 15 (Start time: 11:54:26 AM)

Total Marks: 1

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a ____ Ethernet address.

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

88
sec(
s)

Quiz Start Time: 11:47 AM

Question # 12 of 15 (Start time: 11:54:53 AM)

Total Marks: 1

The Current version of IP-Version 4 is _____ old

 Select correct option:



MC100201881 : Ayesha Rafi

Time
Left

87
sec(
s)

Quiz Start Time: 11:47 AM

Question # 13 of 15 (Start time: 11:55:16 AM)

Total Marks: 1

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

 Select correct option:



MC100201881 : Ayesha Rafi

Time Left	86 sec(s)
-----------	-----------

Quiz Start Time: 11:47 AM

Question # 14 of 15 (Start time: 11:56:03 AM)

Total Marks: 1

When one computer sends an ARP message to another the message travels inside the hardware frame. Technically, placing a message inside a frame for transport is not called encapsulation.

 Select correct option:



MC100201881 : Ayesha Rafi

Time Left	69 sec(s)
-----------	-----------

Quiz Start Time: 11:47 AM

Question # 15 of 15 (Start time: 11:56:43 AM)

Total Marks: 1

In _____, the protocol address assigned to a computer is chosen carefully so that computer's hardware address can be computed from the protocol address using basic Boolean and arithmetic operations.

 Select correct option:



MC100207700 : Maleeha Razzaq

Time
Left

48
sec(
s)



Quiz Start Time: 12:01 PM

Question # 1 of 15 (Start time: 12:01:47 PM)

Total Marks: 1

There are three standard implementations to improve computational efficiency: Hashing, Direct Indexing and InDirect Indexing

 Select correct option:



Question No: 1 (Marks: 1) - Please choose one

_____encapsulates IP datagram as data area in hardware frame.

5. **Network Interface Layer**
6. Datalink Layer
7. Network Layer
8. None of the given

Question No: 2 (Marks: 1) - Please choose one

_____ field is used to identify a specific path through the network

5. FLOW LABEL
6. TRAFFIC CLASS
7. **Both a and b**
8. none of the given

Question No: 3 (Marks: 1) - Please choose one

IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

5. **96**
6. 100
7. 120
8. none of the given

Question No: 4 (Marks: 1) - Please choose one

Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses. ARP is almost always used to bind a 32-bit IP address to a _____ Ethernet address.

2. Answer (48bit)

Question No: 5 (Marks: 1) - Please choose one

For _____, information about forwarding is stored in a routing table, which is initialized at system initialization and must be updated as network topology changes.

5. **Efficiency**
6. Security
7. Accuracy
8. Anomalies

Question No: 6 (Marks: 1) - Please choose one

_____ is a technique used to Limit datagram size to small MTU of any network

5. Segmentation
6. **Fragmentation**
7. Encapsulation
8. none of the given

Question No: 7 (Marks: 1) - Please choose one

Class A mask is 255.0.0.0 which is used for _____

5. Unicasting
6. Multicasting
7. **Subnetting**
8. All of the given

Question No: 8 (Marks: 1) - Please choose one

When one computer sends an ARP message to another the message travels inside the hardware frame. Technically, placing a message inside a frame for transport is not called encapsulation.

- 3. True
- 4. **False**

Question No: 9 (Marks: 1) - Please choose one

Which one of these is not a main feature of connectionless service:

- 2. It includes extension of LAN abstraction.
- 3. It has universal addressing and the data is delivered in packets frames), each with a header
- 4. It combines collection of physical networks into a single virtual network.
- 5. **It has universal addressing and the data is delivered in packets frames), without a header**

Question No: 10 (Marks: 1) - Please choose one

Which protocol is used to test different tools.

- 1. **ICMP**
- 2. IGMP
- 3. TCP/IP

4. none of the given

Question No: 11 (Marks: 1) - Please choose one

_____ message is sent in response to incoming datagrams with problems.

1. TCP/IP
2. IGMP
3. **ICMP**
4. none of the given

Question No: 12 (Marks: 1) - Please choose one

Which one is NOT the function of ping program

1. Traceability
2. **Reach ability**
3. Both a and b
4. None of the given

Question No: 13 (Marks: 1) - Please choose one

IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

1. **96**
2. 100
3. 120
4. none of the given

5.

Question No: 14 (Marks: 1) - Please choose one

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

1. **MTU**
2. Size
3. IP header
4. None of the given

Question No: 15 (Marks: 1) - Please choose one

The Source can configure outgoing datagram's to avoid _____

1. Segmentation
2. **Defragmentation**
3. Fragmentation
4. None of the given

Question No: 16 (Marks: 1) - Please choose one

Which one of these is not a main feature of connectionless service:

1. It includes extension of LAN abstraction.
2. has universal addressing and the data is delivered in packets frames), each with a header.
3. It combines collection of physical networks into a single virtual network.
4. **It has universal addressing and the data is delivered in packets frames), without a header.**

Question No: 17 (Marks: 1) - Please choose one

Every hardware technology specification includes the definition of the maximum size of the frame data area, which is called the _____ Transmission Unit

1. Least

2. **Maximum**

3. Fragment

4. Frame

Question No: 18 (Marks: 1) - Please choose one

_____ Protocol provides error reporting mechanism.

1. IGMP

2. SNMP

3. **ICMP**

4. none of the given

Question No: 19 (Marks: 1) - Please choose one

_____ Source is responsible for fragmentation.

1. IPV4

2. **IPV6**

Question No: 20 (Marks: 1) - Please choose one

MTU Stands for _____

1. Minimum transmission unit

2. Maximum transmission unit

3. Multicast transmission unit

4. None of the given

FINAL TERM EXAMINATION

Spring 2010

CS610- Computer Network

Ref No: 1578657

Time: 90 min

Marks: 60

Question No: 1 (Marks: 1) - Please choose one

_____ A
----- relies on the hardware manufacturer to assign a unique physical address to each network interface.

► Static addressing scheme

► Configurable addressing scheme

► Dynamic addressing scheme

► None of the given

Question No: 2 (Marks: 1) - Please choose one

_____ An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

► RJ-45, 10 Base T

- RJ-45, 10 Base 5
- BNC, 10 Base 2
- BNC, 10 Base T

Question No: 3 (Marks: 1) - Please choose one

_____ A system with redundant bridges might have a problem with _____ in the system.

► Loop

- Filters
- Spanning Trees
- All given choices

Question No: 4 (Marks: 1) - Please choose one

A Bridge can _____

- Filter a frame
- Forward a frame
- Extend a LAN
- **Do all the above**

Question No: 5 (Marks: 1) - Please choose one

_____ is used for typical data applications (where the data rate may be unknown and bursty) and allows use of whatever bandwidth is available at a given time.

- Constant Bit Rate (CBR) service
- Variable Bit Rate (VBR) service
- **Available Bit Rate (ABR) service**
- None of the given

Question No: 6 (Marks: 1) - Please choose one

assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

- ▶ 21-bit
- ▶ 22-bit
- ▶ 23-bit

▶ 24-bit

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

▶ Physical Layer

- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

Question No: 8 (Marks: 1) - Please choose one

_____ places the boundary between the second and third octets

▶ Class A

- ▶ Class B
- ▶ Class C
- ▶ Class D

Question No: 9 (Marks: 1) - Please choose one

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network

▶ Transport

Question No: 10 (Marks: 1) - Please choose one

action-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

- ▶ IP
- ▶ None of the given

▶ TCP

- ▶ UDP

Question No: 11 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

▶ Transport Layer

Question No: 12 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- ▶ Logical address

Source port

Logical address

None of the give

- ▶ Source port

▶ Destination Port

- ▶ None of the given

Question No: 13 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

- ▶ Destination Port

▶ Source port

- ▶ Logical address
- ▶ None of the given

Question No: 14 (Marks: 1) - Please choose one

_____ Which
h of the following are interior routing protocols?

▶ RIP

- ▶ OSPF
- ▶ BGP
- ▶ RIP and OSPF

Question No: 15 (Marks: 1) - Please choose one

_____ The
Border Gateway Protocol (BGP) uses_____ for all communication

- ▶ UDP

▶ TCP

- ▶ Both UDP and TCP
- ▶ None of the given

Question No: 16 (Marks: 1) - Please choose one

_____ measures distance in network hops, where each network between the source and destination counts as single hop.

- ▶ BGP
- ▶ OSPF

▶ RIP

- ▶ None of the given

Question No: 17 (Marks: 1) - Please choose one

_____ OSPF
is based on-----

- ▶ Distance vector routing

▶ Link state routing

- ▶ Path vector routing
- ▶ Distance vector routing and Link state routing

Question No: 18 (Marks: 1) - Please choose one

_____ performs local multicast and uses IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

▶ Distance Vector Multicast Routing Protocol (DVMRP)

- ▶ Core Based Trees (CBT)
- ▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*
- ▶ Protocol Independent Multicast _ *Dense Mode (PIM-DM)*

Question No: 19 (Marks: 1) - Please choose one

The length of time required to send a variable length packet is variable and does not require a complicated interrupt scheme to detect completion of transmission.

- ▶ True

▶ False

Question No: 20 (Marks: 1) - Please choose one

_____ NEXT HEADER field in the base header defines type of header and it appears at end of fixed-size base header.

▶ True

- ▶ False

Question No: 21 (Marks: 1) - Please choose one

_____ Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ True

- ▶ False

Question No: 22 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

▶ True

▶ **False**

Question No: 23 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

▶ **True**

▶ False

Question No: 24 (Marks: 1) - Please choose one

_____ In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

▶ **True**

Question No: 25 (Marks: 1) - Please choose one

_____ The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

▶ **itself**

▶ prefix

▶ suffix

▶ mask

Question No: 26 (Marks: 1) - Please choose one

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

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

▶ T, C

▶ D

▶ C

▶ T, D

Question No: 27 (Marks: 1) - Please choose one

_____ In which method of Address Resolution Protocol the protocol address is determined by hardware address?

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

▶ T

▶ D

• ▶ C

▶ T, C

Question No: 28 (Marks: 1) - Please choose one

_____ Reco instruction of original datagram is called reassembly.

▶ True

▶ False

Question No: 29 (Marks: 1) - Please choose one

_____ A computer needs a complete stack of protocols to run either a client or a server.

▶ True

▶ False

Question No: 30 (Marks: 1) - Please choose one

_____ TCP uses _____ mechanism to control the flow of data.

▶ door

▶ window

▶ acknowledgment

▶ retransmission

FINALTERM EXAMINATION

Fall 2008

Question No: 1 (Marks: 1) - Please choose one

Computer networks are often called ----- because they use packet technology.

- ▶ Ethernet
- ▶ Switch networks
- ▶ Packet networks

▶ None of the given

Question No: 2 (Marks: 1) - Please choose one

A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology

▶ Ring Topology

- ▶ Bus Topology
- ▶ None of the given

In a ring topology each computer is connected to other thorough a ring

Question No: 3 (Marks: 1) - Please choose one

An -----method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.

▶ Explicit frame type

- ▶ Ideal frame type
- ▶ Implicit frame type
- ▶ None of the given

EXPLICIT FRAME TYPE:

In this type the identifying value is included with frame describes types of included data.

Question No: 4 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ RJ-45, 10 Base T (reference not available)

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

Question No: 5 (Marks: 1) - Please choose one

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's _____

- ▶ Layer 2 source address
- ▶ Source node's physical address

▶ Layer 2 destination address (not confirm)

- ▶ Layer 3 destination address

Question No: 6 (Marks: 1) - Please choose one

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called _____

- ▶ Hierarchal address

▶ Default route

- ▶ Shortest path
- ▶ None of the given

Most WAN systems include a mechanism that can be used to eliminate the common case of duplication routing is called Default route. The mechanism allows a single entry in a forwarding table to replace a long list of entries that have the same next hope value

Question No: 7 (Marks: 1) - Please choose one

_____ of TCP/IP layering model, corresponds to basic network hardware.

▶ Physical Layer

- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ Transport Layer

LAYER 1:

Corresponds to basic network hardware layer in OSI

Question No: 8 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

The Internet layer in the TCP/IP reference model is responsible for transferring data between the source and destination computers

Question No: 9 (Marks: 1) - Please choose one

_____ is called an end-to-end protocol because it provide a connection directly from an application on one computer to an application on a remote computer.

- ▶ IP
- ▶ **UDP**
- ▶ TCP
- ▶ None of the given

UDP has the following characteristics.

It is an end-to-end protocol. It provides application-to-application communication.

Question No: 10 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

DISTANCE-VECTOR ROUTING:

- It is very simple to implement.
- Packet switch updates its own routing table first.

- It is used in RIP.

Question No: 11 (Marks: 1) - Please choose one

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

_____ ▶ **Flood-and -Prune**

- ▶ Configuration-and -Tunneling
- ▶ Core-Based Discovery
- ▶ None of the give006E

FLOOD-AND-PRUNE:

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

Question No: 12 (Marks: 1) - Please choose one

Router that decrements TTL to ___ sends ICMP time exceeded message, with router's address as source address

- ▶ 3
- ▶ 2
- ▶ 1

_____ ▶ **0**

Router that decrements TTL to 0 sends ICMP time exceeded message, with router's address as source address

Question No: 13 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- _____ ▶ **software**
- ▶ operating system
- ▶ internet

PROTOCOL ADDRESSES AND PACKET DELIVERY:

Protocol addresses are abstractions provided by software

Question No: 14 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

 ▶ **True**

▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient

Question No: 15 (Marks: 1) - Please choose one

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

 ▶ **32, 48**

▶ 24, 32

▶ 32, 64

▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 16 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

▶ False

 ▶ **True**

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

Question No: 17 (Marks: 1) - Please choose one

In which method of Address Resolution Protocol the protocol address is determined by hardware address?
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?

- ▶ T
 - ▶ D
 - ▶ C
-
- ▶ T, C

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

Question No: 18 (Marks: 1) - Please choose one

The general form of an IP datagram is with a header followed by data. The header contains information that controls where and how the datagram is to be sent.

▶ **True**

▶ False

- Header contains all information needed to deliver datagram to the destination computer. It contains:
 - Destination address
 - Source address
 - Identifier
 - Other delivery information

Question No: 19 (Marks: 1) - Please choose one

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

▶ True

▶ False

"It provides routing among autonomous systems (EGP).

Question No: 20 (Marks: 1) - Please choose one

Which of the following is a correct representation of the IPv6?

▶ 105.220.136.100.255.255.255.0.0.18.128.140.10.255.255

▶ 105.220.136.100.255.255.255.256.0.0.18.128.140.10.255.255

▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255.255.256

▶ 105.220.136.100.255.255.255.255.0.0.18.128.140.10.255

Question No: 1 (Marks: 1) - Please choose one

The number of connections needed for N computer in direct point to point communication is equal to:

▶ $(N^2 - N)/2$

▶ $N(N - 1)$

▶ N^2

▶ None of the given

For 'n' computers connections in direct point to point communication = $(n^2 - n)/2$.

Question No: 2 (Marks: 1) - Please choose one

When an application----- data, it makes a copy of the data available to all other computers on the network.

▶ Broadcasting

▶ Multicasting

▶ Unicasting

▶ None of the given (not sure)

Question No: 3 (Marks: 1) - Please choose one

Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

▶ 64

▶ 48

▶ 32

▶ 8

Ethernet uses a 48-bit static addressing scheme

Question No: 4 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with_____ in the system.

_____ ► **Loop**

- Filters
- Spanning Trees
- All given choices

Reference not available

Question No: 5 (Marks: 1) - Please choose one

The product of delay and throughput measures the _____ of data that can be present on the network.

- Area
- Volume
- Length
- None of the given

It is computed as delay time multiplied by effective throughput. It measures amount of data that can be present in the network

Question No: 6 (Marks: 1) - Please choose one

Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

- TCP
- _____ ► **UDP**

- IP
- None of the given

UDP has the following characteristics.

- *It is an end-to-end protocol. It provides application-to-application communication.*
- *It provides connectionless service.*
- *It is a Message-Oriented protocol.*
- *It uses best-effort delivery service.*
- *It follows arbitrary interaction.*
- *It is operating system independent*

Question No: 7 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____

▶ None of the given

▶ **TCP**

▶ UDP

▶ IP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

• *Connection-oriented service*

• *Point-to-point*

• *Complete reliability*

• *Full-duplex communication*

• *Stream interface*

• *Reliable connection startup*

• *Graceful connection shutdown*

Question No: 8 (Marks: 1) - Please choose one

The process of using a routing table to select a next hop for a given datagram is called_____

▶ Encapsulation

▶ Reassembling

▶ **Routing or forwarding**

▶ None of the given

Reference not available

Question No: 9 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

▶ BGP

▶ OSPF

▶ **RIP**

- ▶ None of the given

DISTANCE-VECTOR ROUTING:

- *It is very simple to implement.*
- *Packet switch updates its own routing table first.*
- *It is used in RIP.*

Question No: 10 (Marks: 1) - Please choose one

A multicast routing scheme in which the protocol software builds a delivery tree from a central point is called_____

- ▶ Distance Vector Multicast Routing Protocol (DVMRP)
- ▶ **Core Based Trees (CBT)**
- ▶ Protocol Independent Multicast_ *Sparse Mode (PIM-SM)*
- ▶ Protocol Independent Multicast _ *Dense Mode (PIM-DM)*

CORE BASED TREES (CBT):

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

Question No: 11 (Marks: 1) - Please choose one

One repeater _____, two repeaters _____ the maximum cable length limitation.

- ▶ doubles, cancel
- ▶ **doubles, triple**
- ▶ square roots, cube roots
- ▶ and, triple

One repeater doubles, two repeaters triple the maximum cable length limitation.

Question No: 12 (Marks: 1) - Please choose one

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

- ▶ postfix, Infix
- ▶ non of these
- ▶ Infix, prefix
- ▶ **prefix, suffix**

Whenever it handles a packet, IP software needs to separate the destination address into a prefix and suffix

Question No: 13 (Marks: 1) - Please choose one

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

▶ True

▶ False

CASHING ARP RESPONSES:

Although message exchange can be used to bind addresses, sending a request for each binding is hopelessly inefficient.

Question No: 14 (Marks: 1) - Please choose one

ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

▶ 32, 48

▶ 24, 32

▶ 32, 64

▶ 32, 128

ARP is almost always used to bind a 32-bit IP address to a 48-bit Ethernet address

Question No: 15 (Marks: 1) - Please choose one

End-to-end delivery service is connection oriented.

▶ True

▶ False

End-to-end delivery service is connection less

Question No: 16 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

▶ True

► **False**

There is no single networking technology that is best for all needs

Question No: 17 (Marks: 1) - Please choose one

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

► False

► **True**

In the 1970s large organizations began to acquire multiple networks. Each network in the organization formed island. Employees needed to choose a computer appropriate for each task. So they needed multiple screens, keyboards and computers.

Question No: 18 (Marks: 1) - Please choose one

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

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

► **T**

► C

► D

► C, D

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

Question No: 19 (Marks: 1) - Please choose one

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

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

► T

► D

► **C**

Features	Types of Resolution
Use full with any hardware	T
Address change affects all hosts	T
Protocol address is determined by hardware address	C

- ▶ T, C

Question No: 20 (Marks: 1) - Please choose one

We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- ▶ routing path
- ▶ **routing metric**
- ▶ routing
- ▶ switching

We use the term routing metric to refer to a measure of the path that routing software use when choosing a route

Question No: 1 (Marks: 1) - Please choose one

In Direct point to point communication adding the Nth computer requires----- new connections.

- ▶ None of the given
- ▶ N^2
- ▶ $(N^2 - N)/2$

disadvantage In Direct point to point communication is that adding a new computer to the network requires N-1 new connections .(P# 23)

Question No: 2 (Marks: 1) - Please choose one

In Point-to-Point topology there are two topologies.

- ▶ Tree and Ring
- ▶ Star and Ring
- ▶ **Star and Tree**
- ▶ None of the given

Question No: 3 (Marks: 1) - Please choose one

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

- ▶ **LAN**
- ▶ WAN
- ▶ MAN
- ▶ None of the given

In LAN network occupies the smaller area like a room a floor or a building.(P# 4)

Question No: 4 (Marks: 1) - Please choose one

Hardware that calculates a CRC uses two simple components.

- ▶ AND unit and XOR unit
- ▶ **Shift register and XOR unit**

- ▶ Shift register and AND unit
- ▶ None of the given

CRC uses just two hardware components:

Shift register

Exclusive OR (XOR unit) .(P# 20)

Question No: 5 (Marks: 1) - Please choose one

CRC can detect more errors than a simple checksum.

- ▶ true
- ▶ false

Question No: 6 (Marks: 1) - Please choose one

The Gigabit Ethernet hardware operates at a rate of -----

- ▶ 10 Mbps
- ▶ 100 Mbps
- ▶ **1000 Mbps**
- ▶ None of the given

Gigabit Ethernet that operates at 1 Gbps (1000 Mbps) over fiber optics and twisted pair Ethernet cables.

Question No: 7 (Marks: 1) - Please choose one

Formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.

- ▶ 10 Base 2
- ▶ 10 Base 5
- ▶ **10 Base T**
- ▶ None of the given

10BASE-T:

This is another standard of wiring scheme. It is commonly called 10Base-T, Twisted Pair or TP Ethernet. (P# 43)

Question No: 8 (Marks: 1) - Please choose one

An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

▶ **RJ-45, 10 Base T**

- ▶ RJ-45, 10 Base 5
- ▶ BNC, 10 Base 2
- ▶ BNC, 10 Base T

Question No: 9 (Marks: 1) - Please choose one

A system with redundant bridges might have a problem with _____ in the system.

▶ **Loop**

- ▶ Filters
- ▶ Spanning Trees
- ▶ All given choices

Question No: 10 (Marks: 1) - Please choose one

_____ computes shortest paths in a graph by using weights on edges as a measure of distance.

- ▶ Greedy algorithm
- ▶ Distance vector algorithm

▶ **Dijkstra's algorithm**

- ▶ Non of the given

Dijkstra's algorithm can accommodate weights on edges in graph. The shortest

path is then the path with lowest total weight (sum of the weight with all edges). It should

be noted that the shortest path is not necessarily with fewest edges (or hops).

Question No: 11 (Marks: 1) - Please choose one

Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.

- ▶ Connectionless service paradigm
- ▶ Connection-oriented service paradigm
- ▶ **Both Connectionless and Connection-oriented service paradigm**
- ▶ None of the given

Question No: 12 (Marks: 1) - Please choose one

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

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer
- ▶ **Transport Layer**

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer.

Question No: 13 (Marks: 1) - Please choose one

An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host

- ▶ 48-bit
- ▶ **32-bit**
- ▶ 24-bit
- ▶ None of the given

An Internet address (IP address) is a unique 32-bit binary number assigned to a

host and used for all communication with the host

Question No: 14 (Marks: 1) - Please choose one

The address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.

- ▶ prefix , suffix
- ▶ **suffix , prefix**
- ▶ suffix , suffix
- ▶ None of the given

PREFIX:

It identifies the physical network to which the computers are attached.

SUFFIX:

It identifies an individual computer on the network.

Question No: 15 (Marks: 1) - Please choose one

_____ places the boundary between the first and second octets

- ▶ **Class A**
- ▶ Class B
- ▶ Class C
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

Question No: 16 (Marks: 1) - Please choose one

_____ places the boundary between the third and fourth octets.

- ▶ Class A
- ▶ Class B
- ▶ **Class C**
- ▶ Class D

Class A places the boundary between the first and second octets. Class B places the boundary between the second and third octets, and class C places the boundary between the third and fourth octets.

Question No: 17 (Marks: 1) - Please choose one

_____ field of header indicates whether a datagram is a fragment or a complete datagram.

- ▶ FLAGS
- ▶ FLAGMENT OFFSET
- ▶ IDENTIFICATION
- ▶ **None of the given**

FRAGMENTATION:

IP uses fragmentation i.e. datagrams can be split into pieces to fit in network with small MTU. Each fragment is an independent datagram. It includes all header fields. Bit in header indicates that the datagram is a fragment

Question No: 18 (Marks: 1) - Please choose one

_____ provides connectionless service.

- ▶ TCP
- ▶ **UDP**
- ▶ IP
- ▶ None of the given

UDP has the following characteristics.

- It is an end-to-end protocol. It provides application-to-application communication.
- It provides connectionless service.
- It is a Message-Oriented protocol.
- It uses best-effort delivery service.
- It follows arbitrary interaction.
- It is operating system independent

Question No: 19 (Marks: 1) - Please choose one

UDP and TCP are both _____ layer protocols

- ▶ Physical
- ▶ Data link
- ▶ Network
- ▶ **Transport**

Question No: 20 (Marks: 1) - Please choose one

Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by _____

- ▶ IP
- ▶ None of the given

► **TCP**

► UDP

SERVICE PROVIDED BY TCP:

Following are the services provided by TCP:

- Connection-oriented service
- Point-to-point
- Complete reliability
- Full-duplex communication
- Stream interface
- Reliable connection startup
- Graceful connection shutdown

Question No: 21 (Marks: 1) - Please choose one

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

- Physical Layer
- Network Interface Layer
- Internet Layer

► **Transport Layer**

LAYER 4: ensure reliable transfer layer 4 in TCP layering model is transport layer

Question No: 22 (Marks: 1) - Please choose one

_____ identifies which application program on receiving computer should receive the data

- Logical address
- Source port

► **Destination Port**

- None of the given

FieldDestinationPort identifies which application program on receiving computer should receive the data.

While field source port identifies the application programs that sent the data. (reference from E-books)

Question No: 23 (Marks: 1) - Please choose one

_____ identifies the application program that sent the data.

- DestinationPort

► **Source port**

- Logical address
- None of the given

FieldDestinationPort identifies which application program on receiving computer should receive the data.

While field source port identifies the application programs that sent the data. (reference from E-books)

Question No: 24 (Marks: 1) - Please choose one

The Border Gateway Protocol (BGP) uses_____ for all communication

- UDP

► **TCP**

- Both UDP and TCP
- None of the given

BORDER GATEWAY PROTOCOL:

It is most popular Exterior Gateway Protocol in Internet. It has following characteristics:

"It provides routing among autonomous systems (EGP).

"It provides policies to control routes advertised.

"It uses reliable transport (TCP).

Question No: 25 (Marks: 1) - Please choose one

Which of the following protocols allows the sender and receiver to enforce policies.

- ▶ RIP
- ▶ OSPF
- ▶ BGP
- ▶ RIP and OSPF

Question No: 26 (Marks: 1) - Please choose one

_____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF
- ▶ **RIP**
- ▶ None of the given

ROUTING INFORMATION PROTOCOL (RIP):

It has the following characteristics:

"It is used for routing within an autonomous system (IGP).

"Hop Count Metric: RIP measures distance in network hops, where each network between the source and destination counts as a single hop.

"It uses UDP for all message transmissions.

"RIP is used over LAN. Version 1 of RIP uses hardware broadcast and version 2 allows delivery via multicast.

"It can be used to advertise default route propagation. An organization can use RIP to install a default route in each router.

"It uses distance vector algorithm.

Question No: 27 (Marks: 1) - Please choose one

ICMP message transport is acted upon by getting ICMP encrypted in IP.

- ▶ **True**
- ▶ False

ICMP message transport is acted upon by getting ICMP encapsulated in IP (P# 117)

Question No: 28 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

- ▶ hardware
- ▶ **software**
- ▶ operating system
- ▶ internet

Protocol addresses are abstractions provided by software

Question No: 29 (Marks: 1) - Please choose one

These packets serve same purpose on _____ as frames on _____

- ▶ Intranet, LAN
- ▶ Internet, WAN
- ▶ Intranet, WAN
- ▶ **Internet, LAN**

VIRTUAL PACKETS:

These packets serve same purpose in Internet as frames on LAN

Question No: 30 (Marks: 1) - Please choose one

Address mask defines how many bits of address are in suffix?

- ▶ True
- ▶ **False**

Address mask defines how many bits of address are in prefix. Prefix defines how much of address used to identify network.

Question No: 31 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

- ▶ True
- ▶ **False**

There is no single networking technology that is best for all needs

Question No: 32 (Marks: 1) - Please choose one

A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?

- ▶ **True**
- ▶ False

The chief problems with multiple networks are as follows:

- A computer attached to a given network can only communicate with other computers attached to the same network.

Question No: 33 (Marks: 1) - Please choose one

The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.

- ▶ **itself**
- ▶ prefix
- ▶ suffix
- ▶ mask

Classful IP addresses are self-identifying because the class of the address can be computed from the address itself

Question No: 34 (Marks: 1) - Please choose one

Find the class of the address.

10100111 11011011 10001011 01101111

- ▶ A
- ▶ **B**
- ▶ E
- ▶ C

Reference table handouts P # 87

Question No: 35 (Marks: 1) - Please choose one

Find the class of the address:

11110011 10011011 11111011 00001111

- ▶ A
- ▶ C
- ▶ **E**
- ▶ B

Reference table handouts P # 87

Question No: 36 (Marks: 1) - Please choose one

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

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

- ▶ T
- ▶ D
- ▶ **C**
- ▶ T, C

Reference table handouts P # 97

Question No: 37 (Marks: 1) - Please choose one

Which method of Address Resolution Protocol requires hardware broadcast?

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

- ▶ **D**
- ▶ T
- ▶ C
- ▶ T, D

Reference table handouts P # 97

Question No: 38 (Marks: 1) - Please choose one

Which method of Address Resolution Protocol resolution with minimum delay?

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

- ▶ T, D
- ▶ c
- ▶ T
- ▶ **T, C**

Reference table handouts P # 97

Question No: 39 (Marks: 1) - Please choose one

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

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

- ▶ T, C
- ▶ T
- ▶ C
- ▶ **D**

Reference table handouts P # 97

Question No: 40 (Marks: 1) - Please choose one

On of the design goals for unicast route propagation is _____.

- ▶ Consistency
- ▶ inconsistency
- ▶ **stability**
- ▶ dynamic addressing

On of the design goals for unicast route propagation is stability—continual changes in route are undesirable because they lead to higher jitter and datagram arriving out of order. Thus, once a unicast routing protocol finds a shortest path, it usually retains the route until a failure makes the path unusable. (Reference from E-book)

Question No: 41 (Marks: 1) - Please choose one

Propagation multicast routing information differs dramatically from unicast route propagation?

▶ **True**

▶ False

Propagating multicast routing information differs dramatically from unicast route propagation. The difference arises because internet multicast allows dynamic group membership and autonomous senders

Question No: 42 (Marks: 1) - Please choose one

The IP multicast abstraction allows an application running on an arbitrary computer to leave a multicast group at any time. While _____ application on a computer remain a member of a group.

▶ One or more

▶ only one

▶ no

▶ many

Question No: 43 (Marks: 1) - Please choose one

To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.

▶ True

▶ **False**

To save traffic, an EGP summarize routing information from the autonomous system before passing it to another autonomous system. More important an EGP implements policy constraints that allow a system manager to determine exactly what information is released outside the organization. (Reference from E-book)

Question No: 44 (Marks: 1) - Please choose one

In IPv6 the type of address used for collection of computers with same prefix. Are known as_____.

▶ Anycast

▶ Unicast

▶ Multicast

▶ **Non of the given**

Following are special types of addresses, IPv6 uses:

Unicast: *It is used for single destination computer.*

Multicast: *It is used for multiple destinations; possibly not at same site.*

Cluster: *This type of address is used for collection of computers with same prefix,*

datagram is delivered to one out of cluster.

Question No: 45 (Marks: 1) - Please choose one

Special types of addresses in IPv6 used for multiple destinations; possibly not at same site. Are known as_____.

▶ Unicast

▶ Anycast

▶ **Multicast**

▶ Non of the given

Following are special types of addresses, IPv6 uses:

Unicast: It is used for single destination computer.

Multicast: It is used for multiple destinations; possibly not at same site.

Cluster: This type of address is used for collection of computers with same prefix,

datagram is delivered to one out of cluster.

Question No: 46 (Marks: 1) - Please choose one

UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.

▶ **True**

▶ False

UDP offers application programs a Message-Oriented Interface. It does not divide messages into packets for transmission and does not combine messages for delivery.

ADVANTAGES:

• *Applications can depend on protocol to preserve data boundaries.*

Question No: 47 (Marks: 1) - Please choose one

Reliability is the responsibility of the _____ layer

▶ Network

▶ Datalink

▶ **Transport**

▶ Application

Reliability is the responsibility of the Transport layer

Question No: 48 (Marks: 1) - Please choose one

TCP uses _____ mechanism to control the flow of data.

▶ door

▶ **window**

▶ acknowledgment

▶ retransmission

TCP uses window mechanism to control the flow of data.

Question No: 49 (Marks: 1) - Please choose one

The time for acknowledgement to arrival of packet depends on.

▶ **Distance to destination and Current traffic conditions**

▶ Current traffic conditions

▶ Distance to destination

▶ non of these

The time for acknowledgement to arrive depends on:

• *Distance to destination*

• *Current traffic conditions*

Question No: 50 (Marks: 1) - Please choose one

FDDI can transmits data at a rate of -----

▶ **100 million bits per second**

▶ 10 million bits per second

- ▶ 1000 million bits per second
- ▶ None of the given

FDDI: Fiber distributed data interconnect (FDDI) is another ring technology. Its most important features are:

It uses fiber optics between stations and transmits data at 100Mbps.

Questio1) When an application----- data, it makes a copy of the data available to all other computers on the network.

____ **▶ Broadcasting**

- ▶ Multicasting
- ▶ Unicasting
- ▶ None of the given

2) Ethernet uses a ----- bit static addressing scheme in which each device is assigned a unique address by the manufacturer.

- ▶ 64

____ **▶ 48**

- ▶ 32
- ▶ 8

3) The product of delay and throughput measures the _____ of data that can be present on the network.

- ▶ Area

____ **▶ Volume (supposition)**

- ▶ Length
- ▶ None of the given

4) Connectionless service, Message-Oriented protocol, best effort delivery service, arbitrary interaction and operating system independent are the characteristics of _____

- ▶ TCP

____ **▶ UDP**

- ▶ IP
- ▶ None of the given

5) _____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF

_____ ▶ **RIP**

- ▶ None of the given

6) Whenever it handles a packet, IP software needs to separate the destination address into a _____ and _____.

- ▶ postfix, Infix
- ▶ non of these
- ▶ Infix, prefix

_____ ▶ **prefix, suffix**

7) ARP is almost always used to bind a ___-bit IP address to a ___-bit Ethernet address.

_____ ▶ **32, 48**

- ▶ 24, 32
- ▶ 32, 64
- ▶ 32, 128

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

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

- ▶ T

_____ ▶ **C (Supposition)**

- ▶ D

- ▶ C, D

9) In which method of Address Resolution Protocol the protocol address is determined by hardware address?

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

- ▶ T

- ▶ D

_____ ▶ **C**

- ▶ T, C

10) We use the term _____ to refer to a measure of the path that routing software use when choosing a route.

- ▶ routing path

_____ ▶ **routing metric**

- ▶ routing

- ▶ switching

11) A network uses a -----arranges for computers to be connected in a closed loop.

- ▶ Star Topology

_____ ▶ **Ring Topology**

- ▶ Bus Topology

- ▶ None of the given

12) An interface for thin Ethernet must have an _____ connector , and must generate signals according to the _____ specification.

_____ ▶ **RJ-45, 10 Base T**

- ▶ RJ-45, 10 Base 5

- ▶ BNC, 10 Base 2

- ▶ BNC, 10 Base T

13) _____ protocols of TCP/IP layering model specify how to ensure reliable transfer.

- ▶ Physical Layer
- ▶ Network Interface Layer
- ▶ Internet Layer

_____ ▶ **Transport Layer**

14) _____ uses distance vector approach to define routing

- ▶ BGP
- ▶ OSPF

_____ ▶ **RIP**

- ▶ None of the given

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