

Solved FINALTERM EXAMINATION
Spring 2010
CS610- Computer Network

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

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?

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

Question No: 31 (Marks: 2)

To solve the problem the routers and networks in the Internet are divided into groups. How large do you think are these groups?

Solution

I think these groups are very large and spread in whole world because for long distance Internet communication WAN is used for this purpose Routers are use for networking. And further they connected to LAN for use in office or home.

Question No: 32 (Marks: 2)

Trace route continues to increment the Time to Live until the value is large enough for the datagram to reach its final destination. What happens when the TTL is sufficiently large for the datagram to reach its destination?

Question No: 33 (Marks: 2)

How can TCP monitor internet delays?

Question No: 34 (Marks: 2)

Which wireless standard is used in WIFI technology?

IEEE 802.11 is standard wireless LAN

Question No: 35 (Marks: 3)

How does IP software reassemble fragments that arrive out of order?

Whenever it handles a packet, IP software needs to separate the destination address into a prefix and suffix. Classful IP addresses are self-identifying because the class of the address can be computed from the address itself.

Question No: 36 (Marks: 3)



What kind of information is in a routing table?

For efficiency, information about forwarding is stored in a routing table, which is initialized at system initialization and must be updated as network topology changes. The routing table contains list of destination networks and next hop for each destination.

Question No: 37 (Marks: 3)

Define frames without type field?

Question No: 38 (Marks: 3)

What is the meaning of *Facilities For Transit Routing* as a characteristic of the Border Gateway Protocol?

Question No: 39 (Marks: 5)

What are the characteristics of the 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).

"It gives path of autonomous systems for each destination.

"Currently the EGP is of choice in the Internet.

"The current version is four (BGP-4).

"It provides facilities for Transit Routing.

Question No: 40 (Marks: 5)

Describe how NAT can be usefull for residence with cable modem or DSL?

NAT is useful at a residence with Cable Modem or DSL connectivity as it allows the customer to have multiple computers at home without requiring an IP address for each of them. Instead a single IP address is used for all the computers. NAT software allows a PC to connect with the Internet and act as a NAT device at the same time.

