

Spring 2010
CS610- Computer Network
Dated:- 13-08-2010

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
- ☐ $N-1$
- ☒ $(N^2 - N)/2$

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

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

- ☒ LAN
- ☐ 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
- ☐ 8

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

The maximum size of an Ethernet segment is _____

- ☐ 250 meters
- ☐ 500 meters
- ☒ 700 meters (may be I select)
- ☐ 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.

- ☐ $D + T$
- ☐ $D - T$
- ☒ $D \times T$
- ☐ D / T

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

_____ places the boundary between the first and second octets

- ☒ Class A
- ☐ 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
- ☐ Larger, larger
- ☐ Smaller, larger
- ☐ Smaller, smaller

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

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
- ☐ 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](#)
- ☐ 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](#)
- ☐ 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](#)
- ☐ 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](#)
- ☐ 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](#)
- ☐ BGP
- ☐ None of the given

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

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

- ☒ [Double, triple](#)
- ☐ 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](#)
- ☐ False

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

Like most application programs, a client and server use a transport protocol to communicate.

- ☒ [True](#)
- ☐ False

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

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

- ☒ [True](#)
- ☐ False

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

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

- ☐ True
- ☒ [False](#)

Question No: 20 (Marks: 1) - Please choose one

A single networking technology is best for all needs.

- ☐ True
- ☒ [False](#)

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](#)

Question No: 22 (Marks: 1) - Please choose one

Router detects datagram-----than network MTU

- ☒ [Larger](#)
- ☐ 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](#)
- ☐ 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](#)
- ☐ dynamic addressing

Question No: 25 (Marks: 1) - Please choose one

IPV6 address consists of _____

- ☐ 32 Bits
- ☐ 64 Bits
- ☒ [128 Bits](#)
- ☐ 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](#)
- ☐ 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\(I think\)](#)
- ☐ Nanoseconds

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](#)
- ☐ 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](#)
- ☐ Bus Topology
- ☐ None of the given

Question No: 30 (Marks: 1) - Please choose one

Protocol addresses are abstractions provided by _____.

- ☐ hardware
- ☒ [software](#)
- ☐ operating system
- ☐ internet



Question No: 31 (Marks: 2)

Does OSPF only share information within area or does it allow communication between areas?

Solution

OSPF only share information within area

Question No: 32 (Marks: 2)

Define what is extension head in IPv6

Solution

Additional information is stored in optional extension headers, followed by data.

Question No: 33 (Marks: 2)

What is implementation of NAT?

Solution

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.

Question No: 34 (Marks: 2)

Which wireless standard is used in WIFI technology?

Solution

IEEE 802.11 is standard wireless LAN

Question No: 35 (Marks: 2)

How ICMP can be used to trace route?

Solution

Question No: 36 (Marks: 3)

Write a note on “limited connectivity” of Wireless LAN.

Solution

Question No: 37 (Marks: 3)

In internet routing how can a host join or leave group?

Solution

Question No: 38 (Marks: 3)

Provide three characteristics of UDP?

Solution

- ✚ • 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: 39 (Marks: 5)

What is meant by message oriented interface in UDP also give the advantages and disadvantages of interface

Solution

ADVANTAGES:

- Applications can depend on protocol to preserve data boundaries.

DISADVANTAGES:

- Each UDP message must fit into a single IP datagram.
- It can result to an inefficient use of the underlying network

Question No: 40 (Marks: 5)

What is the role of OSPF?