



**MIDTERM EXAMINATION
CS610- Computer Network**

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

_____ has a jitter zero

- ▶ None of the given
- ▶ Virtual Private Network
- ▶ Isochronous Network
- ▶ Asynchronous Network

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

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

- ▶ Connectionless service paradigm
- ▶ 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

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
- ▶ 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

- . ▶ 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
- . ▶ 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
- . ▶ 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
- . ▶ 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 -----

- . ▶ 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

. ▶ 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

. ▶ Data

. ▶ None of the given

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

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

. ▶ Ping

. ▶ 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

. Ping

. ▶ 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

- ▶ WAN
- ▶ MAN
- ▶ None of the given

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

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

- .  ☐ ☐ ☐ ☐ **False**
 .  ☐ ☐ ☐ ☐ ☐

Question No: 17 (Marks: 2) Format is not clear even I try to do with cntl+A and then change format with 12/Times new roman or ariel. But fail

[illegible]

Question No: 18 (Marks: 2) ???? Format nt clear

[illegible]

Question No: 19 (Marks: 3) ????? Format not Clear

[illegible]

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.