Reading Comprehension
Passage 10

Performance of LAN workstation is not only dependent upon the traffic performance of the LAN and the loading and speed of any LAN server resources, but is also governed by its own performance. Network tuning encompasses more than remedial repairs. Most Ethernet controllers provide average transmission throughput of about 1 Mbits/s, or 10 percent of the channel capacity. Note that the Ethernet transceiver always sends signals at 10 Mbits/s as per Ethernet specification, but few personal computers or even engineering workstations can sustain that transmission rate for more than a few seconds per minute. A time delay exists for gathering the data, assembling it into packets, transmitting the frames, and verifying acceptance by the recipient.

Additionally few file servers have hard disks that can transfer 1.2Mb of information from disk into memory per second, let alone buffer a significant portion of that full image in memory at any given time while waiting for the controller to construct packets at its capacity. Most personal computers with ISA disk controllers can achieve the slow disk transfer of 256 K (or 0.25 Mbyte) per second. Even if the file server with a SCSI-2 disk drive and controller were to sustain data transfer speed of 4.4 Mbytes/s, the receiving PC might not be able to handle more than 256 Kbytes/s. Although this might seem like a bottleneck, this data transfer rate is faster than most Ethernet controllers. Floppy drives create bottlenecks due to their slower transfer speeds.

Questions

1- Performance of a LAN workstation ....

1) does not depend on the traffic but is governed by its own performance.

2) depends only upon its traffic performance and the speed of LAN server resources.

3) does not depend on its performance but is governed by the loading and speed of LAN servers.

4) depends on the traffic performance, the loading and speed of LAN servers and its performance.

2-Most Ethernet controllers have .... channel capacity.

1) insufficient throughput relative to

2) an average throughput exceeding the

3) an average throughput much less than the

4) an average throughput much more than the

3- Personal computers and engineering workstations can..........

 1) not sustain data rates of Ethernet transceivers.

 2) constantly sustain data rates of about 10 Mbits/s.

3) only sustain data rates of Ethernet transceivers for a few minutes.

 4) sustain data rates of Ethernet transceivers for a few seconds per minute.

Answers

1 ==> 4

2==> 3

3==> 4