

Quiz 3_ Ch 9 - Ch 13 (password: 2626)

Due Nov 16 at 11:59pm **Points** 10 **Questions** 40
Available Nov 16 at 9:30am - Nov 16 at 11:59pm about 15 hours
Time Limit 100 Minutes

Instructions

You will receive 0.25 points for each calculation question; please enclose the detail calculation.

You cannot come back to the previous question.

Thank you!

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	90 minutes	8.25 out of 10 *

* Some questions not yet graded

❗ Correct answers are hidden.

Score for this quiz: **8.25** out of 10 *

Submitted Nov 16 at 11:16am

This attempt took 90 minutes.

Question 1

0.25 / 0.25 pts

It is the responsibility of the processor to periodically check the status of the I/O module until it finds that the operation is complete.

☒ True

☐ False

Question 2

0.25 / 0.25 pts

With isolated I/O there is a single address space for memory locations and I/O devices.

☐ True

☒ False

Incorrect

Question 3

0 / 0.25 pts

The difference between virtual circuits and packet switching is _____

☐ point signal line

☐ the path of each packet

☒ packet routing

☐ gateway connection

Question 4

0.25 / 0.25 pts

Which of the following is not part of the TCP/IP protocol suite?

☒ SMS☐ ssh☐ http☐ ftp**Question 5****0.25 / 0.25 pts**

With a daisy chain the processor just picks the interrupt line with the highest priority.

☐ True☒ False**Question 6****0.25 / 0.25 pts**

The amount of time that it takes for a packet to get from one end of the network to the other is called the

☒ network propagation delay.☐ network broadcast delay.☐ network diameter delay time.☐ furthest node travel time.

Question 7**0.25 / 0.25 pts**

Which of the following is a primary measure to keep the network and system resources intact and free from the results of intrusion?

- ☒ limiting physical access to network wiring and network equipment.
- ☐ electronic signatures
- ☐ confidentiality
- ☐ CAPTCHAs

Question 8**Not yet graded / 0.25 pts**

Please enclose the detailed calculation:

A multiple hard disk is divided into 1100 sectors and 40,000 cylinders. There are six platter surfaces. Assume each block has 512 bytes. The disk is rotating at a rate of 4800 rpm. The disk has an average seek time of 12 msec. What is the total capacity of this disk?

Your Answer:

total capacity of this disk are express as

total capacity = hard disk divided × cylinder block holds × average seek time ÷ 2

put here value we get

total capacity = $1100 \times 40000 \times 512 \times 6 = 135,168,000,000$ bytes

Question 9**0.25 / 0.25 pts**

The amount of time that it takes for a packet to get from one end of the network to the other is called the

- ☐ network broadcast delay
- ☐ furthest node travel time
- ☐ network diameter delay time
- ☒ network propagation delay

Question 10**0.25 / 0.25 pts**

Symmetric key cryptography requires

- ☒ the same key be used for both encryption and decryption.
- ☐ the same key be used, one publicly available, and the other private.
- ☐ two different keys, both private.
- ☐ two different keys, one publicly available, and the other private

Question 11**0.25 / 0.25 pts**

The upper _____ layers of the OSI model assume that a successful end-to-end connection is established and maintained at the transport layer. These layers are concerned with the flow of data and control between applications on the communicating nodes.

☒ three☐ two☐ four☐ five**Question 12****Not yet graded / 0.25 pts**

Please enclose the detailed calculations:

How many connections are required for 60 nodes to be connected in a full mesh topology?

Your Answer:

Number of connections = nodes * (nodes-1) / 2
= $60 \times 29 / 2$
= 870

Incorrect**Question 13****0 / 0.25 pts**

The channel architecture is more powerful and flexible, because_____

☐ avoid conflicts between the CPU and I/O modules during transfers☐ better performance alternative to the IDE bus☐ it data transfers between I/O and memory

- ☒ it isolates and processes each operation independently

Question 14**0.25 / 0.25 pts**

To solve the related problems of channel availability and maximum utilization, there must be a way to break long messages into smaller units. These units are called

- ☐ containers
- ☐ boxes
- ☐ envelopes
- ☒ packets

Incorrect**Question 15****0 / 0.25 pts**

The purpose of a bus interface is_____

- ☒ allowing each part of the system to be optimized separately
- ☐ provide the correct data transfer rate
- ☐ overwhelm the signals on the bus
- ☐ send signals on different lines in each bus

Question 16**0.25 / 0.25 pts**

Which Ethernet type is based logically on a star topology and when one node on the network wishes to communicate with another node, the switch sets up a direct connection between the two?

- ☐ Ring Ethernet
- ☐ Star Ethernet
- ☒ Switched Ethernet
- ☐ Mesh Ethernet

Question 17

0.25 / 0.25 pts

Which type of network is used to interconnect local area networks? The primary motivation for this type of network is to improve overall performance of a larger network by creating separate local area networks for groups of users who communicate primarily with each other.

- ☐ extended networks
- ☐ link networks
- ☐ connected networks
- ☒ backbone networks

Question 18

0.25 / 0.25 pts

In a wireless network where the access points are connected by radio, the mesh points operate at the _____ and are essentially invisible to the upper layers of the network.

- ☒ media access control layer (layer 2)
- ☐ session layer 5 (layer 5)
- ☐ physical layer (layer 1)
- ☐ transport layer (layer 4)

Question 19

0.25 / 0.25 pts

Which of the following is not true about datagram switching?

- ☒ TCP/IP rarely uses datagram switching.
- ☐ A routing decision can be based on shortest path to next node.
- ☐ A routing decision can be based on traffic conditions at the time of packet arrival.
- ☐ Each packet is routed from node to node independently.

Question 20

0.25 / 0.25 pts

The _____ contains logic for performing a communication function between the peripheral and the bus.

☐ I/O command

☒ I/O module

☐ I/O channel

☐ I/O processor

Question 21

0.25 / 0.25 pts

A technique called _____ is where an individual computer system is used to simulate multiple computers, all sharing the same CPU and I/O facilities.

☐ parallelization

☐ replicating

☐ clustering

☒ virtualization

Question 22

0.25 / 0.25 pts

In most computer systems, the CPU, memory, and other major components are mounted to wiring on a printed circuit board known as a(n)

☐ circuit plane

- ☐ peripheral board
- ☐ adapter board
- ☒ motherboard

Question 23**0.25 / 0.25 pts**

The PCI-Express is made up of a bundle of thirty-two serial, bidirectional point-to-point buses. Each bidirectional bus is called a(n)

- ☐ inner bus.
- ☐ component bus.
- ☐ sub-bus.
- ☒ lane

Question 24**0.25 / 0.25 pts**

The most common means of computer/user interaction is a _____.

- ☐ monitor/printer
- ☒ keyboard/monitor
- ☐ mouse/printer
- ☐ modem/printer

Question 25**0.25 / 0.25 pts**

The advantage of clustering is _____

- ☐ grid
- ☐ isochronous data transfer
- ☐ commodity-off-the-shelf
- ☒ load-balancing

Incorrect**Question 26****0 / 0.25 pts**

The _____ layer is the key to the operation of Thunderbolt and what makes it attractive as a high-speed peripheral I/O technology.

- ☐ cable
- ☐ application
- ☒ common transport
- ☐ physical

Question 27**0.25 / 0.25 pts**

The primary external bus for connecting peripheral devices to a computer is _____

- ☒ USB (Universal Serial Bus)
- ☐ SATA
- ☐ PCI-Express
- ☐ Serial Attached SCSI (SAS)

Question 28

0.25 / 0.25 pts

_____describes the fundamental configuration, or layout, of a network

- ☐ communication channel
- ☐ full-duplex channels
- ☐ simplex channel
- ☒ network topology

Question 29

0.25 / 0.25 pts

_____is a central connection device used to simplify wiring and maintenance

- ☐ gateway

- ☒ hub
- ☐ Ethernet
- ☐ Local area network

Question 30**0.25 / 0.25 pts**

The address for each node on an Ethernet is called a

- ☐ collision
- ☐ data link layer
- ☐ carrier sense multiple access
- ☒ MAC address

Question 31**0.25 / 0.25 pts**

The purpose of the _____ is to take message from network applications and provide services that support reliable end-to-end communications

- ☐ address resolution protocol
- ☐ port
- ☒ transport layer
- ☐ IP

Question 32**0.25 / 0.25 pts**

The _____ contains I/O protocols that are mapped on to the transport layer.

- ☒ application
- ☐ cable
- ☐ physical
- ☐ common transport

Question 33**0.25 / 0.25 pts**

To restore the original waveform that was used to modulate the carrier , we use _____

- ☐ wavelength
- ☐ frequency
- ☒ demodulator
- ☐ filtering

Question 34**0.25 / 0.25 pts**

The main disadvantage of an I/O bus (and buses in general)_____

- ☐ memory-mapped I/O
- ☐ interrupts
- ☒ the bus has fixed bandwidth that must be shared by all other devices
- ☐ the processor spending much of its time idle waiting for each bus

Question 35

0.25 / 0.25 pts

I/O system can be divided into two major components: the technologies used to interface the I/O devices to the rest of the system and _____

- ☐ interrupts
- ☐ interface abstraction
- ☒ the I/O devices themselves
- ☐ specification

Question 36

0.25 / 0.25 pts

How does the virtual memory system prevent programs from accessing each other's data?

- ☐ reduces the amount of time spent copying data of of the hard disk

- ☐ every write to the main memory had to be sent to the disk
- ☒ memory from one program cannot target the physical address another program's data
- ☐ swapping systems copy all of the memory

Incorrect**Question 37****0 / 0.25 pts**

Device which is consists of a sensing mechanism integrated within the display screen called _____

- ☐ touch screen
- ☒ optical character recognition device
- ☐ CPU
- ☐ smart card

Question 38**0.25 / 0.25 pts**

To identify the network application requesting service, the transport protocol identifies the application that created the message and the application that is to receive the message with _____

- ☐ application numbers
- ☐ application address numbers

- ☒ port numbers
- ☐ network node numbers

Question 39**0.25 / 0.25 pts**

The network connection between nodes is not accessible from outside the cluster

- ☒ True
- ☐ False

Question 40**0.25 / 0.25 pts**

The upper _____ layers of the OSI model assume that a successful end-to-end connection is established and maintained at the transport layer. These layers are concerned with the flow of data and control between applications on the communicating nodes.

- ☒ three
- ☐ four
- ☐ five
- ☐ two

Quiz Score: 8.25 out of 10