1 and 13 Are not Correct

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| --- | --- |
| **Started on** | Wednesday, 28 June 2023, 4:11 AM |
| **State** | Finished |
| **Completed on** | Wednesday, 28 June 2023, 5:07 AM |
| **Time taken** | 55 mins 54 secs |
| **Marks** | 48.00/50.00 |
| **Grade** | **9.60** out of 10.00 (**96**%) |

Top of Form

Question **1**

Incorrect

Mark 0.00 out of 1.00

Flag question

Question text

Fill in the blank. Computer system components may be divided into the following categories: CPU, memory, I/O modules, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Operating Systems



B.

The system bus



C.

Application programs



D.

Memory stack

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following introduced the capability for many users to simultaneously compete for resources?

Select one:



A.

Batch processing



B.

Punched cards



C.

Multiprogramming



D.

Simplistic multiprocessors

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are operating systems in general use today EXCEPT:

Select one:



A.

Unix



B.

Linux



C.

Microsoft Windows



D.

IOCS

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following statements about operating systems is false?

Select one:



A.

An operating system manages a computer system's resources.



B.

An operating system is not a necessary software component of all computer systems.



C.

An operating system acts as an interface between hardware and application programs.



D.

An operating system provides a set of services to users.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The 64-bit logical address range is equal to which of the following?

Select one:



A.

Less than half of the address range of a 32-bit OS



B.

Over 10 times that of a 32-bit OS



C.

1024mb



D.

4 billion 32-bit address ranges

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are ways for a programmer to implement concurrency EXCEPT:

Select one:



A.

Blocking



B.

Inter-process communication



C.

Mapping processes directly to hardware



D.

Select-based programming

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. While a process can be defined as a unit of resource ownership and pertains to the execution of a single program, a thread is a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Set of processes



B.

Unit of execution which belongs to a process



C.

Non-traceable unit of execution



D.

Unit of execution which can belong to multiple processes

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What is concurrency?

Select one:



A.

The ability of a system to handle requests sequentially



B.

The ability of an operating system to handle multiple tasks simultaneously



C.

The capability of an operating system to update itself



D.

The process by which user rights are managed

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A process can be defined as a unit of execution characterized by all of the following EXCEPT:

Select one:



A.

A single sequential thread of execution.



B.

A current state.



C.

Exclusive control of one computer component.



D.

Having a set of system resources associated with it.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

When a thread context switch occurs, the operating system must save the state of the currently executing thread, copy all registers associated with that thread to a thread control block, and then do which of the following?

Select one:



A.

Terminate the process.



B.

Restore the state of the thread to run next.



C.

Wait for further instructions.



D.

Flush all registers todisk.

Question **11**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

In the producer/consumer problem, some threads are producers and some are consumers. While producers create items of some kind and add them to a data structurer, consumers do which of the following?

Select one:



A.

Remove the items and store them



B.

Remove the items and process them



C.

Add more items to the data structure



D.

Remove items

Question **12**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. A block of code where shared resources are accessed is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Cache



B.

Heap



C.

Critical section



D.

Stack

Question **13**

Incorrect

Mark 0.00 out of 1.00

Flag question

Question text

One reason that there is a need for a well structured way to facilitate interprocess communication is to ensure predictable behavior. What is the other reason?

Select one:



A.

To ensure faster operation of the system



B.

To avoid deadlock



C.

To avoid a system crash



D.

To maintain integrity of the system

Question **14**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following best represents one of the advantages of semaphores?

Select one:



A.

They are not expensive to implement.



B.

They can be written only in Java.



C.

They impose deliberate constraints that help programmers avoid error.



D.

They increase programmer productivity.

Question **15**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

When thinking about an operating system, synchronization refers to which of the following?

Select one:



A.

The way that the system clock is managed



B.

The way that the computer starts up



C.

Relationships among any number of events



D.

Software vs. hardware timing

Question **16**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What are requirements pertaining to the order of events in an operating system called?

Select one:



A.

Synchronization constraints



B.

Design flaws



C.

Data sinks



D.

Data flows

Question **17**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. A lock with zero or more conditional variables to manage concurrent access to shared data is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Monitor



B.

Producer



C.

Consumer



D.

Philosopher

Question **18**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A process is considered to be preemptive when it can be forced to give up the CPU. Which of the following statements about a nonpreemptive process is true?

Select one:



A.

It can be terminated by any other process.



B.

It runs until it terminates or willingly gives up control.



C.

It never terminates.



D.

It always only lasts one CPU burst.

Question **19**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are CPU scheduling algorithms EXCEPT:

Select one:



A.

Shortest Job Last



B.

Round Robin



C.

Shortest Time Remaining



D.

Shortest Job First

Question **20**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. The amount of time that a process can execute is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

CPU burst



B.

I/O burst



C.

Sun burst



D.

Memory cycle

Question **21**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

While a dispatcher removes a process from the ready queue, a scheduler does which of the following?

Select one:



A.

Removes a process from the wait queue



B.

Adds a process to the wait queue



C.

Removes all processes



D.

Inserts a process into a queue

Question **22**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following describes one objective of CPU scheduling?

Select one:



A.

To keep the CPU free as much as possible



B.

To decide which threads and/or processes should be given access to resources from moment to moment



C.

To flush out internal caches to disk when they are full



D.

To schedule backup jobs for the CPI

Question **23**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. A system is in a safe state when deadlock is avoided even if the system \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Has low memory



B.

Is in a state of deadlock



C.

Lacks sufficient privileges



D.

Allocates resources up to the maximum for each process

Question **24**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

In the diagram shown below, assume that the circles are processes and the rectangles are instances of a resource. Also, assume that a line from a process to a resource (i.e. the arrowhead is on the resource side) indicates that a process is requesting a resource. A line from a resource to a process (i.e. the arrowhead is on the process side) indicates that a resource has been allocated to a process. Why does this diagram show a deadlock?

Select one:



A.

Resource R2 has been allocated to only one process, P3.



B.

Process P3 must wait for process P2 to be finished with resource R3 before it can use this resource.



C.

Process P1 is waiting on resource R1, which has been allocated to process P2. Process P2 is waiting for resource R3, which is currently allocated to process P1. Thus, there is a circular wait condition.



D.

There is no mutual exclusion present.

Question **25**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are possible options to recover from a deadlock EXCEPT:

Select one:



A.

Terminate a thread or process, forcing it to give up resources.



B.

Preempt resources without killing it off.



C.

Shut down the system and restart.



D.

Rollback actions of deadlocked threads or processes.

Question **26**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

While deadlock avoidance is a strategy which only grants a resource to a process if the request will not result in deadlock, deadlock prevention does which of the following?

Select one:



A.

Follows a strict set of rules to prevent deadlock



B.

Changes the rules so that processes will not make requests which will cause deadlock



C.

Never works correctly



D.

Causes only one process to execute on the processor at one time

Question **27**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following statements best describes the Banker's Algorithm?

Select one:



A.

The Banker's Algorithm allocates resources dynamically to prevent deadlock.



B.

The Banker's Algorithm brokers loans of resources between processes.



C.

The Banker's Algorithm has never been proven to work correctly.



D.

The Banker's Algorithm is best used when a large amount of memory is available.

Question **28**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What are two methods of memory access?

Select one:



A.

Paging and dequeueing



B.

Segmentation and cyclic redundancy



C.

Paging and segmentation



D.

Virtual and physical memory addressing

Question **29**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

How does the operating system use virtual memory to make application programs think that they have a full 32-bit address space when physical memory is often much less?

Select one:



A.

Ram is used to store information multiple times.



B.

Frequently used items are stored in RAM, while less used items are stored on disk. When needed, items from disk are brought into memory.



C.

Disk is directly mapped to memory addresses.



D.

Extremely fast disk is mapped to memory addresses.

Question **30**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

While the best fit algorithm scans the free memory list to find the best free hole to use for a memory request, the first fit algorithm does which of the following?

Select one:



A.

It finds the largest free space that can accommodate the request.



B.

It finds the first free space that can accommodate the request.



C.

It finds the first free space that will exactly accommodate the request.



D.

It finds the first free space irregardless of whether the request will fit in the space or not.

Question **31**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are page replacement algorithms EXCEPT:

Select one:



A.

LRU



B.

OPT



C.

NRU



D.

Best Fit

Question **32**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are part of the memory management hierarchy EXCEPT:

Select one:



A.

Hardware memory management



B.

Application memory management



C.

Printer memory management



D.

Operating system memory management

Question **33**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

While hardware memory management is most concerned with electronic devices, such as RAM, that actually store data, operating system memory management is concerned with which of the following?

Select one:



A.

How to request more memory from the owner of the system



B.

How to allocate memory to processes and reallocate it when it is no longer needed



C.

Fragmenting physical memory



D.

Only virtual memory management

Question **34**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are file system components EXCEPT:

Select one:



A.

Page table



B.

Disk management



C.

Naming



D.

Reliability

Question **35**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which disk scheduling algorithms perform better for systems that place a heavy load on disk?

Select one:



A.

Shortest Seek Time First



B.

First Come First Served



C.

SCAN and C-SCAN



D.

Look and C-Look

Question **36**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are ways to access a file EXCEPT:

Select one:



A.

Sequential access



B.

Parallel access



C.

Content-based access



D.

Random access

Question **37**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The diagram shows which type of file allocation method?

Select one:



A.

Contiguous



B.

Chained



C.

Indexed



D.

Hash key

Question **38**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The diagram below shows what method of file allocation?

Select one:



A.

Indexed



B.

Chained



C.

Uniform



D.

Contiguous

Question **39**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is an access control method that assigns privileges to users, programs, or roles as appropriate?

Select one:



A.

Role-based access control



B.

Static access control



C.

Dynamic access control



D.

Rule-based access control

Question **40**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. A code segment that replicates itself by attaching copies of itself to existing executables is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Trojan horse



B.

Virus



C.

Worm



D.

Logic bomb

Question **41**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following dictates that programs, users, and systems be given just enough privileges to perform their tasks?

Select one:



A.

Marconi Algorithm



B.

Fault Tolerent Principle



C.

Security Principle



D.

Principle of Least Privilege

Question **42**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are types of security threats EXCEPT:

Select one:



A.

Errors and omissions



B.

Fraud and theft



C.

System failure



D.

Malicious hackers

Question **43**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are types of malicious software EXCEPT:

Select one:



A.

Viruses



B.

Trojan horses



C.

Worms



D.

System purges

Question **44**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The TCP/IP reference model has how many layers?

Select one:



A.

4



B.

7



C.

16



D.

5

Question **45**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Two nodes on a network communicate via which of the following?

Select one:



A.

Language



B.

Prototype



C.

Protocol



D.

Handshake

Question **46**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The OSI reference model has how many layers?

Select one:



A.

5



B.

7



C.

12



D.

3

Question **47**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. One form of broadcast transmission, unicast, sends a message from one node to another. Another type of transmission that sends a message from one node to many is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:



A.

Swellcast



B.

Multicast



C.

Avicast



D.

Plexicast

Question **48**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

All of the following are reference models EXCEPT:

Select one:



A.

TCP/IP



B.

OSI



C.

Pyramid Reference Model



D.

Five Layers Model

Question **49**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fill in the blank. While protocols are used to communicate between nodes, \_\_\_\_\_\_\_\_\_\_\_\_\_ contain data encoded using a protocol.

Select one:



A.

Packets



B.

Bits



C.

Packages



D.

Bytes

Question **50**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is a type of network that connects hosts within a building or campus of buildings?

Select one:



A.

Wide-area network



B.

Local-area network



C.

Metropolitan area network



D.

Global network

Bottom of Form