CIS 350 Test 3 Study Guide

1. In a virtual storage system, for each program, the operating system creates a \_\_\_\_\_\_\_\_\_\_\_\_\_, which keeps track of the corresponding frame location in physical memory where each page is stored. **A: page table**
2. Modern computer systems enable users to work with more than one program at the same time as a way to improve their efficiency. This technique is known as **A: multitasking/multiprogramming**.
3. To the operating system, the difference between the process and the program is insignificant. **A: False**
4. A process in execution will be suspended if the process is waiting for **A: Any of the above(an I/O request to finish, data result from another process, a completion signal from another process.)**
5. Which UNIX/LINUX command would you use to obtain help on the command *who*? **A: man who**
6. A system in a constant state of replacing pages is known as **A: thrashing.**
7. Which one is typically not an operation performed on an entire file? **A: read a number of bytes from a file**
8. Which user service allows the user to change the user's password? **A: Security and Data Integrity Protection**
9. A \_\_\_\_\_\_\_\_\_\_\_\_\_ is defined to include a program, together with all the resources such as the CPU time, memory, and I/O devices that are associated with that program as it is executed. **A: process**
10. What technique is used to assure the currency and integrity of files when system failures occur during file changes? **A: Journaling**
11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a situation that occurs when a process is never given the CPU time that it needs to execute. **A: Starvation**
12. The solution to the problems inherent with fixed partition and variable partition memory management schemes are found in **A: virtual memory**.
13. What memory management technique creates the illusion of a memory space that is potentially much larger than the actual amount of physical storage installed in the computer system? **A: virtual storage**
14. Which of the following Linux/Unix commands puts the shell to sleep for 50 seconds and then routes the output from the *man* *cp* command to file *help*? **A: (sleep 50; man cp > help)**
15. In a Windows/UNIX/LINUX command, which symbol is used for piping? **A: | (vertical bar)**
16. Which of the following Windows commands pass the output from the DIR command as input to the sort command and then stores the sorted directory in file SAVELIST. **A: DIR | SORT > SAVELIST**
17. How many triple indirect blocks residing in an i-node does the Unix/Linux indexed file allocation method use? **A: 1**
18. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ consists of binary data, where the bytes of data in the file represent the sequence of instructions that make up a program. The file is loaded sequentially into succeeding locations in memory for execution. **A: program file**
19. Some applications require that records be retrievable from anywhere in the file in an arbitrary sequence. These files are known as \_\_\_\_\_\_\_\_\_\_\_. **A: random access files**
20. What is physically stored in virtual memory? **A: nothing because it does not exist**
21. A \_\_\_\_\_\_\_\_\_\_ program is an outer layer software component that allows the user to interface with various operating system functions and services. **A: shell**
22. Which of the following Linux/Unix commands brings you to your home/login directory form anywhere? **A: cd**
23. Non-preemptive systems impose the clock interrupt. As a result, the process is given a slice/quantum of the CPU time. **A: False**
24. To increase security, the critical parts of the operating system will execute in a protected mode while other programs will execute in a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mode. **A: user**
25. Which UNIX/LINUX command would you use to list the contents of a file? **A: cat**
26. In dynamic address translation using paging, the program page size is always \_\_\_\_\_\_\_\_\_\_\_\_ the memory frame size. **A: equal to**
27. A UNIX/LINUX file is viewed as a string of **A: bytes**
28. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ derive the meaning from their position in the operands' field. **A: Positional parameters**
29. Which of the following memory management techniques leads to external fragmentation? **A: dynamic partitioning**
30. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is demanding on hardware and software and it requires powerful video capability and a lot of memory to store pictures and programs. **A: Graphical user interface**
31. In a Windows/UNIX/LINUX command, which symbol is used for input redirection? **A: < (less than sign)**
32. The user interface is a commonly called a \_\_\_\_\_\_\_\_\_\_ that is usually not part of the OS. **A: shell**
33. The OS manages basic hardware resources such as **A: all of them (CPU time, memory, I/O devices)**
34. What role does the operating system play between the user and the user's programs and the hardware of the computer? **A: Intermediary**
35. Many systems provide a means for dividing physical devices, particularly disks, into independent sections called **A: partitions**
36. Operating systems designed for small hand-held devices are \_\_\_\_ operating systems. **A: mobile**
37. How many direct blocks residing in an i-node does the Unix/Linux indexed file allocation method use? **A: 10**
38. Which operating system function is responsible for providing the communication software necessary to implement the features and facilities of Wi-Fi, wired Ethernet, and TCP/IP? **A: Network management, communication support, and communication interfaces**
39. \_\_\_\_\_\_\_\_\_\_\_\_\_ systems will limit the time that the program remains in the running state to a fixed length of time corresponding to one or more quanta. **A: Preemptive**
40. Excessive swapping-in and -out may result in so called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which may substantially decrease the system performance. **A: thrashing**
41. The \_\_\_\_\_\_\_ command/operation is used to take the output from one program and use it as the input to another. **A: PIPE**
42. Which of the following is not a common command language capability? **A: Direct memory access**
43. Fragmentation of a disk occurs when **A: All of the above (files are deleted, files are moved, files grow too large for their anticipated storage and must be moved.)**
44. The \_\_\_\_\_\_\_\_\_\_\_ of the file is the way in which the data is actually stored on a disk. **A:   
    physical view**
45. When one process has a resource that another process needs to proceed, and the other process has a resource that the first process needs, then both are waiting for an event that can never occur. This situation is called **A: deadlock**
46. The critical components of the operating system that remain in memory as long as the computer is running are commonly known as the **A: kernel**.
47. Which Windows command would you use to copy the contents of a file to another file? **A: copy**
48. In the Windows command prompt, the root directory is denoted by a **A: \ (backslash)**
49. Which of the following System Dispatching Objectives is concerned with maximizing the number of jobs completed in any given time period? **A: Maximize throughout**
50. In dynamic address translation using segmentation and paging, the address part of the instruction has \_\_\_\_\_\_\_\_\_ parts. **A: 3**
51. When you first log onto UNIX/LINUX, your \_\_\_\_\_\_\_\_ directory is your working directory. **A: home**
52. At the top of the Windows/Linux directory structure is a single system \_\_\_\_\_\_\_\_ directory. **A: root**
53. Assume a UNIX/LINUX command references a group file names by using the wild card, the asterisk "\*", in this manner *Pr\*.c*. Which of the following file names is not referenced? **A: Papa.c**
54. Interrupts are detected (sensed) by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and handled by the OS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. **A: hardware/software**
55. Which operating system function is responsible for providing a consistent view of files across different I/O devices? **A: The file management system**
56. When you login to Ubuntu Linux the default shell is the **A: Bourne Again shell (Bash shell**)
57. GUI and CLI are examples of **A: user interfaces**
58. If several programs are ready to execute, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is polling all programs' PCBs in memory and decides which one should be granted the CPU time. **A: dispatcher**
59. Which of the following Windows commands displays the hierarchy of the subdirectories without listing the files stored in the current/default directory and subdirectories under it? **A: TREE**
60. File management tasks do not encompass **A: high-level scheduling**
61. The command line interface allows the user to access data files and program files by \_\_\_\_\_\_\_\_\_\_\_\_- the user is not concerned with physical characteristics and representation of the file or data and their physical storage locations. **A: name**
62. System administrators' tasks do not include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **A: performing context switching**
63. Which item(s) is an attribute of a file? **A: All of the above(Size, Owner, Type/Extension,** **Name)**
64. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the smallest unit that the file management system can store or retrieve in a single read or write operation. **A: cluster/block**
65. During execution, programs exhibit a tendency to stay within small areas of memory during any given period of time. This property is called the **A: locality of reference.**
66. The CPU may be switched rapidly between different programs, executing several instructions from each, using a periodic clock-generated interrupt. What is that technique called? **A: time-slicing**
67. When using the command line interface, both Linux and Windows use the \_\_\_\_\_\_\_\_\_\_\_\_ symbol as a "wild card" for a single character. **A: question mark "?"**
68. File directories are also files. **A: True**
69. The Linux file system can define three groups of users: an owner, users in the owner's group, and everyone else. These groups are then assigned read, write, and \_\_\_\_\_\_\_\_\_\_ privileges. **A: execute**
70. If a hard disk has 400GB of space and a block contains 8KB, how many entries at a minimum would be required in a tabular non-contiguous file allocation table to address each block? **A: 50,000,000**
71. Which user service is responsible for handling the physical manipulation of the files and to translate between logical and physical file representations? **A: File Management System**
72. A named collection of data that is manipulated as a unit is called a \_\_\_\_\_\_\_ **A: file**
73. To run a program in the UNIX/LINUX background, type \_\_\_\_\_\_\_ at the end of the command line. **A: an ampersand (&)**
74. Which of the following is how users commonly gain access to operating system services? **A:   
    CLI or GUI**
75. By using simple commands like read, write, close, copy to name a few, the file management system allow users and applications to deal with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ view of files. **A: logical**
76. To get the processor's attention, the peripheral device sends the electronic signal called an/a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. **A: interrupt**
77. To keep track of each of the different processes that are executing concurrently in memory, the operating system creates and maintains a block of data for each process in the system. This data block is known as a(n). **A: process control block**
78. To uniquely identify a Linux/Windows file, combine one or more directory names and a file name to form a **A: path name**
79. CPU-bound programs are typically executed in non-preemptive environments. **A: False**
80. As a way to optimize system performance, the CPU scheduling task is separated into two different phases. Which CPU scheduler phase is responsible for admitting processes to the system, providing long-term scheduling? **A: High-level scheduler**
81. When new I/O devices are added, or the device is changed, it is necessary only to replace the **A:**

**I/O driver for that device.**

1. On the IBM/z system, the access control matrix specifies access privileges that various subjects have to various objects. **A: True**
2. Most modern operating systems provide some capability for combining computer commands into pseudo-programs, commonly called **A: shell scripts**.
3. Virtual addresses are different from real (physical) addresses and a special-purpose hardware called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ quickly maps virtual addresses to real addresses. **A: Memory Management Unit (MMU)**