|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. The operating system manages each and every piece of hardware and software.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. The Memory Manager, the Interface Manager, the User Manager, and the File Manager are the four essential managers of every major operating system.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. Networking was not always an integral part of operating systems.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. The Memory Manager is in charge of main memory**,** widely known as ROM.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. The content of a random access memory (RAM) chip is nonvolatile, meaning that it is not erased when the power is turned off.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. The Device Manager is responsible for connecting with every device that’s available on the system and for choosing the most efficient way to allocate them.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. An important function of the Processor Manager is to keep track of the status of each job, process, and thread.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. Operating systems with networking capability have a fifth essential manager called the Network Manager that provides a convenient way for authorized users to share resources.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. There are two primary types of user interfaces: the graphical user interface and the command line interface.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. When executing a job, the File Manager determines whether a user request requires that a file be retrieved from storage or whether it is already in memory.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. The central processing unit (CPU) is the brains of the computer with the circuitry to control the interpretation and execution of instructions.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. Onboard systems are computers that are physically placed inside the products that they operate to add features and capabilities.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. Batch systems date from early computers, when each job consisted of a stack of chips entered into the system as a unit known as a stack.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. General-purpose operating systems such as Linux or Windows are used in embedded systems.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. The first bug was a moth trapped in a Harvard computer.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. The buffers used in the 1950s to reduce the discrepancy in speed between the I/O and the CPU were conceptually similar to those now used routinely by Web browsers to make video and audio playback smoother.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. In active multiprogramming schemes, a job can monopolize the CPU for a long time while all other jobs waited.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. In the 1980s, as a result of multiprocessing techniques, it became possible to execute two programs at the same time in parallel.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. With distributed operating systems, users need to be aware of which processor is actually running their applications.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. In the 2010s, chips with millions of transistors that were very close together helped increase system performance dramatically.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. The \_\_\_\_ is often very different from one operating system to the next, sometimes even between different versions of the same operating system.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | User Interface | b. | Process Manager | |  | c. | Memory Manager | d. | File Manager |  |  |  | | --- | --- | | *ANSWER:* | a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. A \_\_\_\_ chip holds software that is used to start the computer.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | RAM | b. | ROM | |  | c. | CPU | d. | buffer |  |  |  | | --- | --- | | *ANSWER:* | b | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. The \_\_\_\_ uniquely identifies each resource, starts its operation,monitors its progress, and, finally, deallocates it, making the operating system available to the next waiting process.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Device Manager | b. | File Manager | |  | c. | Keyboard Manager | d. | Memory Manager |  |  |  | | --- | --- | | *ANSWER:* | a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. Each peripheral device has its own software, called a(n) \_\_\_\_, which contains the detailed instructions required to start that device, allocate it to a job, use the device correctly, and deallocate it when it’s appropriate.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | device controller | b. | device software | |  | c. | device handler | d. | device driver |  |  |  | | --- | --- | | *ANSWER:* | d | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. \_\_\_\_ is the practice of using Internet-connected resources to perform processing, storage, or other operations.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Cloud computing | b. | Command line interfacing | |  | c. | Process management | d. | Network management |  |  |  | | --- | --- | | *ANSWER:* | a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. \_\_\_\_ is where the data and instructions of a computer must reside to be processed.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | CPU | b. | Main memory | |  | c. | Read-only memory | d. | I/O memory |  |  |  | | --- | --- | | *ANSWER:* | b | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. The efficiency of a batch system is measured in \_\_\_\_, which is the number of jobs completed in a given amount of time.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | processes | b. | threads | |  | c. | throughput | d. | turnaround time |  |  |  | | --- | --- | | *ANSWER:* | c | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28. \_\_\_\_ systems are used in time-critical environments where reliability is key and data must be processed within a strict time limit.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Embedded | b. | Hybrid | |  | c. | Interactive | d. | Real-time |  |  |  | | --- | --- | | *ANSWER:* | d | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. There are two types of real-time systems depending on the consequences of missing the deadline. A \_\_\_\_ real-time system risks total system failure if the predicted time deadline is missed.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | constrained | b. | restricted | |  | c. | soft | d. | hard |  |  |  | | --- | --- | | *ANSWER:* | d | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. A hybrid system is a combination of \_\_\_\_ systems.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | batch and interactive | b. | batch and real-time | |  | c. | interactive and real-time | d. | real-time and general-purpose |  |  |  | | --- | --- | | *ANSWER:* | a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31. The name for the core portion of an operating system is the \_\_\_\_.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | manager | b. | center | |  | c. | nucleus | d. | kernel |  |  |  | | --- | --- | | *ANSWER:* | d | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32. Starting in the 1950s, to reduce the discrepancy in speed between the I/O and the CPU, an interface called the \_\_\_\_ was placed between them to act as a buffer.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | control unit | b. | scheduler | |  | c. | holder | d. | buffer manager |  |  |  | | --- | --- | | *ANSWER:* | a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 33. The most common mechanism for implementing multiprogramming was the introduction of the \_\_\_\_ concept, whereby the CPU was notified of events needing operating systems services.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | paging | b. | sharing | |  | c. | messaging | d. | interrupt |  |  |  | | --- | --- | | *ANSWER:* | d | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 34. A system with \_\_\_\_ divides programs into parts and keep them in secondary storage, bringing each part into memory only as it is needed.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | virtual memory | b. | shared memory | |  | c. | segmented processing | d. | passive multiprogramming |  |  |  | | --- | --- | | *ANSWER:* | a | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 35. In active multiprogramming, each program is allowed to use only a preset amount of CPU time before it is interrupted so another job can begin its execution. The interrupted job resumes execution at some later time. This idea is called \_\_\_\_.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | shared processing | b. | CPU sharing | |  | c. | time slicing | d. | distributed processing |  |  |  | | --- | --- | | *ANSWER:* | c | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36. The word \_\_\_\_ is used to indicate that a program is permanently held in ROM (read only memory), as opposed to being held in secondary storage.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | hardware | b. | firmware | |  | c. | software | d. | shareware |  |  |  | | --- | --- | | *ANSWER:* | b | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37. \_\_\_\_ allows separate partitions of a single server to support different operating systems.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | Multiprocessing | b. | Multithreading | |  | c. | Virtualization | d. | Shared processing |  |  |  | | --- | --- | | *ANSWER:* | c | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 38. With the development of \_\_\_\_ technology, a single chip was equipped with two or more processor cores.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | multiprogramming | b. | multimedia | |  | c. | networking | d. | multicore |  |  |  | | --- | --- | | *ANSWER:* | d | |