

1. What is the primary function of an operating system?

- a) Managing hardware components
- b) Running application software
- c) Providing a user interface
- d) Controlling and coordinating computer resources

Answer: d) Controlling and coordinating computer resources

Explanation: The primary function of an operating system is to manage computer hardware resources and provide services to software applications.

2. Which of the following is not an evolution stage of operating systems?

- a) Batch processing systems
- b) Time-sharing systems
- c) Multiprogramming systems
- d) Sequential processing systems

Answer: d) Sequential processing systems

Explanation: Sequential processing systems are not considered an evolution stage of operating systems. Instead, they were the initial form of computer processing where each task was executed one after the other.

3. Which type of operating system allows multiple users to simultaneously access the system?

- a) Single-user operating system
- b) Multi-user operating system
- c) Real-time operating system
- d) Network operating system

Answer: b) Multi-user operating system

Explanation: A multi-user operating system allows multiple users to access the system and its resources concurrently.

4. Which characteristic is NOT desirable in an operating system?

- a) Reliability
- b) Security
- c) Compatibility
- d) Complexity

Answer: d) Complexity

Explanation: Complexity is generally not a desirable characteristic in an operating system as it can lead to difficulties in understanding, maintenance, and troubleshooting.

5. Which feature allows an operating system to protect system resources from unauthorized access?

- a) Multi-tasking
- b) Virtual memory
- c) User authentication

d) Kernel mode

Answer: c) User authentication

Explanation: User authentication is a feature that allows an operating system to verify the identity of users accessing the system, thus protecting resources from unauthorized access.

6. Which service involves managing the allocation of memory resources among competing processes?

- a) File management
- b) Memory management
- c) Process management
- d) Device management

Answer: b) Memory management

Explanation: Memory management involves managing the allocation and deallocation of memory resources among processes in a computer system.

7. Which utility program is used to detect and remove malicious software from a computer system?

- a) Disk Cleanup
- b) Disk Defragmenter
- c) Antivirus software
- d) Backup software

Answer: c) Antivirus software

Explanation: Antivirus software is designed to detect and remove malicious software, such as viruses, worms, and trojans, from a computer system.

8. Which system call is used to create a new process in an operating system?

- a) fork()
- b) exec()
- c) wait()
- d) exit()

Answer: a) fork()

Explanation: The fork() system call is used to create a new process in an operating system by duplicating the existing process.

9. Which service is responsible for managing the input and output devices of a computer system?

- a) File management
- b) Memory management
- c) Process management
- d) Device management

Answer: d) Device management

Explanation: Device management is responsible for managing the input and output devices

of a computer system, including handling device drivers and device I/O operations.

10. Which utility program is used to organize and optimize the storage of files on a disk?

- a) Disk Cleanup
- b) Disk Defragmenter
- c) Backup software
- d) File Compression

Answer: b) Disk Defragmenter

Explanation: Disk Defragmenter is used to organize and optimize the storage of files on a disk by rearranging fragmented data into contiguous blocks.

11. Which type of operating system is designed to perform specific tasks in a fixed period of time?

- a) Single-user operating system
- b) Multi-user operating system
- c) Real-time operating system
- d) Network operating system

Answer: c) Real-time operating system

Explanation: Real-time operating systems are designed to perform specific tasks within a fixed period of time, ensuring timely responses to external events.

12. Which system call is used to terminate the execution of a process in an operating

system?

- a) fork()
- b) exec()
- c) wait()
- d) exit()

Answer: d) exit()

Explanation: The exit() system call is used to terminate the execution of a process and return its resources to the operating system.

13. Which service involves managing the creation, execution, and termination of processes in an operating system?

- a) File management
- b) Memory management
- c) Process management
- d) Device management

Answer: c) Process management

Explanation: Process management involves managing the creation, execution, and termination of processes in an operating system.

14. Which utility program is used to make copies of files and data for backup purposes?

- a) Disk Cleanup

- b) Disk Defragmenter
- c) Antivirus software
- d) Backup software

Answer: d) Backup software

Explanation: Backup software is used to make copies of files and data for backup purposes, helping to prevent data loss in case of system failures or disasters.

15. Which type of operating system allows only one user to access the system at a time?

- a) Single-user operating system
- b) Multi-user operating system
- c) Real-time operating system
- d) Network operating system

Answer: a) Single-user operating system

Explanation: A single-user operating system allows only one user to access the system and its resources at a time.

16. Which system call is used to load and execute a new program in an existing process space?

- a) fork()
- b) exec()
- c) wait()
- d) exit()

Answer: b) exec()

Explanation: The exec() system call is used to replace the current process with a new program by loading and executing it in the existing process space.

17. Which service involves managing the storage and retrieval of data on storage devices?

- a) File management
- b) Memory management
- c) Process management
- d) Device management

Answer: a) File management

Explanation: File management involves managing the storage and retrieval of data on storage devices, including organizing, naming, and accessing files.

18. Which utility program is used to free up disk space by removing unnecessary files and temporary data?

- a) Disk Cleanup
- b) Disk Defragmenter
- c) Antivirus software
- d) Backup software

Answer: a) Disk Cleanup

Explanation: Disk Cleanup is used to free up disk space by removing unnecessary files,



temporary data, and other clutter from the disk drive.

19. Which type of operating system is designed to coordinate and manage the resources of multiple interconnected computers?

- a) Single-user operating system
- b) Multi-user operating system
- c) Real-time operating system
- d) Network operating system

Answer: d) Network operating system

Explanation: A network operating system is designed to coordinate and manage the resources of multiple interconnected computers in a network environment.

20. Which system call is used to wait for the termination of a child process in an operating system?

- a) fork()
- b) exec()
- c) wait()
- d) exit()

Answer: c) wait()

Explanation: The wait() system call is used to suspend the execution of a process until one of its child processes terminates in an operating system.

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