1. What is an operating system?  
   A. A program that only manages databases  
   B. A collection of hardware components  
   C. The intermediary between computer hardware and the user and application software✅  
   D. A device used to store information permanently
2. What is the main role of a file system in an operating system?  
   A. To manage how the CPU allocates processes  
   B. To organize and allow saving and accessing data such as documents, music, or photos ✅  
   C. To control the internet connection speed  
   D. To interpret user commands
3. What does the symbol .. mean in directory traversal?  
   A. Current directory  
   B. Root directory  
   C. Parent directory ✅  
   D. Home directory
4. Which OS is primarily used in mobile devices?  
   A. Linux  
   B. iOS ✅  
   C. Windows Server  
   D. macOS
5. Which of the following is NOT a function of an operating system?  
   A. Process management  
   B. File management  
   C. Painting images ✅  
   D. I/O management
6. Which OS is known for its sleek design and integration with Apple devices?  
   A. Windows  
   B. macOS ✅  
   C. Android  
   D. Linux
7. Which metadata type records the history and origin of data?  
   A. Descriptive  
   B. Provenance ✅  
   C. Structural  
   D. Administrative
8. Which is an example of a client operating system?  
   A. Linux Server  
   B. Windows 10 ✅  
   C. Apache  
   D. Ubuntu Server
9. What is the University Vision?  
   A. To prepare computer professionals for the global environment  
   B. To uphold discipline and equality  
   C. To create a community responsive to the challenges of the changing world ✅  
   D. To conduct research and extension programs
10. Which OS function is responsible for protecting files from unauthorized access?  
    A. File management  
    B. Security management ✅  
    C. Memory management  
    D. Signal handling
11. Which file system is the default for Windows?  
    A. FAT16  
    B. FAT32  
    C. NTFS ✅  
    D. Ext4
12. Which user interface requires typing commands into a terminal?  
    A. GUI  
    B. BIOS  
    C. CLI ✅  
    D. Kernel
13. What is the core component of an operating system that manages processes and memory?  
    A. Shell  
    B. BIOS  
    C. Kernel ✅  
    D. Application
14. Which Linux file system is commonly used and supports journaling?  
    A. FAT32  
    B. NTFS  
    C. Ext4 ✅  
    D. HFS
15. What type of storage do SSDs use?  
    A. Magnetic platters  
    B. NAND flash memory ✅  
    C. Optical discs  
    D. Tape drives
16. Which OS is open-source, created by Linus Torvalds in 1991?  
    A. macOS  
    B. Windows  
    C. Linux ✅  
    D. iOS
17. Which command lists files and directories in Linux?  
    A. dir  
    B. ls ✅  
    C. cat  
    D. echo
18. What is the University Philosophy?  
    A. Education is limited to research and extension  
    B. Education is about preparing professionals only  
    C. Education discovers and develops man’s God-given gifts for fulfillment and community uplift ✅  
    D. Education focuses only on technology
19. Which OS type is designed for servers to handle network and business applications?  
    A. Client OS  
    B. Server OS ✅  
    C. Embedded OS  
    D. Real-time OS
20. Which function of the kernel ensures processes do not interfere with each other’s memory?  
    A. Memory protection ✅  
    B. Paging  
    C. File system mounting  
    D. Signal handling
21. What is the School Mission?  
    A. To prepare individuals for society’s needs  
    B. To prepare computer professionals with the best computing science education adaptive to the global environment ✅  
    C. To improve quality of life through research  
    D. To discover man’s God-given gifts
22. Which OS function manages the creation and termination of processes?  
    A. Memory management  
    B. Process management ✅  
    C. I/O management  
    D. File system
23. Which user interface uses icons, windows, and buttons?  
    A. CLI  
    B. BIOS  
    C. GUI ✅  
    D. Kernel
24. What is the role of the **command interpreter** in an OS?  
    A. To manage memory  
    B. To interpret and execute user commands ✅  
    C. To store files permanently  
    D. To initialize hardware
25. Which is the smallest storage unit on a hard disk?  
    A. Track  
    B. Cluster  
    C. Sector ✅  
    D. Cylinder
26. In a file system, what does metadata describe?

A. The graphical icons used to represent files  
B. Details such as file size, creation and modification dates, and permissions ✅  
C. The speed of the operating system  
D. The type of hardware connected to the system

1. Which OS function manages how the CPU and memory resources are allocated to processes?  
   A. File system  
   B. Process management ✅  
   C. Security  
   D. Device drivers
2. In operating systems, what are signals primarily used for?  
   A. To permanently store user files  
   B. To notify a process that a specific event, such as completion or an error, has occurred ✅

C. To allocate memory to running programs  
D. To improve the speed of the processor

1. What is the main purpose of a file system?  
   A. To schedule processes  
   B. To organize and manage files ✅  
   C. To run hardware drivers  
   D. To initialize memory
2. Which command is the default shell interpreter for most Linux systems?  
   A. CMD  
   B. Zsh  
   C. Bash ✅  
   D. BIOS

True or False

**1)** FAT32 supports storing files larger than 4GB ❌ (False)

**2)** BIOS is a computer’s basic firmware that initializes hardware and loads the operating system during startup. ✅ **True**

**3)** A file system helps organize and store files on a computer. ✅ (True) **4)** The kernel is the outermost layer of the operating system. ❌ (False)

**5** Linux was created by Linus Torvalds in 1991. ✅ (True)

**6)** A server operating system is mainly used for playing games. ❌ (False) **7)** NTFS is a file system used in Windows. ✅ (True)

**8)** macOS is built on a UNIX-based foundation. ✅ (True)

**9)** Provenance metadata describes the history and origin of a file. ✅ (True)

**10)** NTFS is the primary file system used in modern versions of Windows. ✅ (True)

Identification

**1)** These signals occur in response to specific actions or conditions within the process that are predictable. **Answer: Synchronous**

**2)** The request is forwarded to this component, which knows how to communicate with and control the hardware device **Answer: Device Driver Activation**

**3)** The request is forwarded to this component, which knows how to communicate with and control the hardware device **Answer: Device Driver Activation** **4)** A hardware component that stores digital data on a physical medium **Answer: disk drive**

**5)** A hardware component that stores digital data on a physical medium **Answer: disk drive**

**6** It is a section of a storage device that the operating system treats as a separate space. It is like dividing a bookshelf into separate sections, each with its own purpose. **Answer: Partition**

**7)** s the process of preparing a storage device, like a hard disk drive (HDD) or solid-state drive (SSD), for data storage by setting up a file system. **Answer: Formatting**

**8**) It gives the full address of a file or folder, starting from the very root of the file system. This path is always complete and will take you to the correct location no matter where you currently are in the system. **Answer: Absolute Path**

**9)** This type of disk formatting creates a new file system and marks the drive as empty without checking for bad sectors or erasing existing data.

**Answer: Quick Format**

**10** It sets up the file system (e.g., NTFS, FAT32) and prepares the disk for use by the user. It organizes how files are stored and accessed but does not change the physical layout of the disk. **Answer: High Level Format**