**01. The \_\_\_\_\_\_\_\_\_ is a program that manages the computer’s resources, provides services for programmers, and schedules the execution of other programs.**

operating system (OS)

**02. Three key interfaces in a typical computer system are: instruction set architecture, application programming interface, and \_\_\_\_\_\_\_\_\_\_\_.**

application binary interface (ABI)

**03. The \_\_\_\_\_\_\_\_\_\_ , or nucleus, contains the most frequently used functions in the OS.**

kernel

**Explanation:** The **kernel** is a [computer program](https://en.wikipedia.org/wiki/Computer_program) that is the core of a computer's [operating system](https://en.wikipedia.org/wiki/Operating_system), with complete control over everything in the system.[[1]](https://en.wikipedia.org/wiki/Kernel_(operating_system)#cite_note-Linfo-1) On most systems, it is one of the first programs loaded on [start-up](https://en.wikipedia.org/wiki/Booting) (after the [bootloader](https://en.wikipedia.org/wiki/Bootloader)). It handles the rest of start-up as well as [input/output](https://en.wikipedia.org/wiki/Input/output) requests from [software](https://en.wikipedia.org/wiki/Software), translating them into [data-processing](https://en.wikipedia.org/wiki/Data_processing) instructions for the [central processing unit](https://en.wikipedia.org/wiki/Central_processing_unit). It handles memory and [peripherals](https://en.wikipedia.org/wiki/Peripheral) like keyboards, monitors, printers, and speakers …

<https://en.wikipedia.org/wiki/Kernel_(operating_system)>

**04. In an \_\_\_\_\_\_\_\_\_ system the user/programmer interacts directly with the computer, usually through a keyboard/display terminal to request the execution of a job or to perform a transaction.**

interactive

**05. A \_\_\_\_\_\_\_\_\_ system groups the user’s program with programs for other users and is submitted by a computer operator, with results being printed out for the user upon completion of the program.**

batch

**06. Early computer systems presented two main problems: setup time and \_\_\_\_\_.**

scheduling

**07. The portion of the monitor that must always be in main memory and available for execution is referred to as the \_\_\_\_\_\_\_\_\_\_.**

resident monitor

**08. The technique where memory is expanded to hold three, four, or more programs and switch among all of them is \_\_\_\_\_\_\_\_\_\_, (or multitasking).**

multiprogramming

**09. In a \_\_\_\_\_\_\_\_\_ system multiple users simultaneously access the system through terminals, with the OS interleaving the execution of each user program in a short burst or quantum of computation.**

time-sharing

**10. The five defined states for a process are: new, ready, waiting, halted, and \_\_\_\_\_\_\_\_.**

running

**11. Each process is represented in the OS by a \_\_\_\_\_\_\_\_\_\_\_, which typically contains identifier, state, priority, program counter, memory pointers, context data, I/O status information, and accounting information.**

process control block

**12. Because a process executes only in main memory, that memory is referred to as \_\_\_\_\_\_\_\_\_\_.**

real memory

**13. \_\_\_\_\_\_\_\_\_\_ allows the programmer to view memory as consisting of multiple address spaces or segments.**

Segmentation

**14. When the processor executes a process it automatically converts from logical to physical address by adding the current starting location of the process, called its \_\_\_\_\_\_\_\_\_\_, to each logical address.**

base address

**15. \_\_\_\_\_\_\_\_\_ paging means that each page of a process is brought in only when it is needed.**

Demand