Tutorial-1

1. What is an operating system?
2. Examples of operating system.
3. What are the features of operating systems?
4. What are types of operating systems?
5. Basic functions of an operating system.
6. What are the differences between multiprocessing and multiprogramming?
7. The software that contains the core components of the operating system is called
    a. Controller
    b. Root
    c. Kernel
    d. None of the above
8. Classify the following as batch-oriented or interactive
    a. Email communications
    b. Word Processing
    c. Bank statements
    d. Fixed employee payroll processing
9. Which of the following are single user operating systems?
    a. MS-DOS
    b. UNIX
    c. XENIX
    d. Both a and b
10. Loading the OS into the memory of a PC is called
    a. Thrashing
    b. Booting
    c. Formatting
    d. Scheduling
11. The Operating system is responsible for
    a. Controlling peripheral devices such as monitor, printers, disk drivers
    b. Providing an interface that allows user to choose programs to run and to manipulate files
    c. Managing users' files on disk
    d. All the above
12. What is not the major objective of an operating system?
    a. To act as a resource manager for multiple tasks
    b. To provide an interface to user.
    c. To act as a uniform abstract machine on top of a variety of different hardware platforms
    d. To enable loading and execution of binary code with minimum intervention by the user
13. Which of the following states is not a discrete process state?
    a. running state
    b. new state
    c. ready state

d. unblocked state

14. In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the RUNNING state to the
    a. READY state
    b. BLOCKED state
    c. TERMINATED state
    d. SUSPENDED state
15. In the multi-programming environment, the main memory consists of _____ number of process.
    a. Greater than 10
    b. Only one
    c. More than one
16. In a multi-programming environment:
    a. The processor executes more than one process at a time
    b. More than one process resides in the memory
    c. None of the above
17. Suppose that a process spends a fraction p of its time in I/O wait state. With n processes in memory at once, the probability that all n processes are waiting for I/O is
    a. 1/p b. 1/pn c. 1 - pn d. pn
18. System call is used to access
    a. I/O functionality
    b. operating system functionality
    c. application functionality
    d. none of the above
19. The maximum number of processes that can be in Ready state for a computer system with n processors is
    a. n (b) n2 (c) 2n (d) Independent of n
20. Classify the following as Processor-bound or I/O bound
    a. Computing ‘pi’ to a million decimal places
    b. Data entry operation for a group of employees
    c. A calculation-oriented program that frequently needs to take different parameters as input from the user
    d. A calculation-oriented program that requires minimal intervention from the user
21. The number of processes completed per unit time is known as _____.
    a. Output
    b. Throughput
    c. Efficiency
    d. Capacity