

Quiz - 1: Operating Systems with Linux (MCA-105)

MCA – 1st Semester (Batch: 2023-25)

Time: 15 Minutes

Max. Marks: 20

Roll Number Name:

1. Embedded computers typically run on a operating system. (1)
 - a) real-time
 - b) network
 - c) clustered
 - d) distributed
2. The two separate modes of operating in a system are (1)
 - a) supervisor mode and system mode
 - b) user mode and kernel mode
 - c) kernel mode and privileged mode
 - d) physical mode and logical mode
3. A message-passing model is (1)
 - a) faster than the shared memory model
 - b) only useful for small simple operating systems
 - c) easier to implement than a shared memory model for inter-process communication
 - d) a network protocol, and does not apply to operating systems
4. provide(s) an interface to the services provided by an operating system. (1)
 - a) Communication
 - b) Simulators
 - c) System calls
 - d) Shared memory
5. A process control block (1)
 - a) includes information on the process's state
 - b) stores the address of the next instruction to be processed by a different process
 - c) determines which process is to be executed next
 - d) is an example of a process queue
6. The of a process contains temporary data such as function parameters, return addresses, and local variables. (1)
 - a) stack
 - b) text section
 - c) data section
 - d) program counter
7. The list of processes waiting for a particular I/O device is called a(n) (1)
 - a) interrupt queue
 - b) ready queue
 - c) device queue
 - d) standby queue
8. The refers to the number of processes in memory. (1)
 - a) dispatcher
 - b) long-term scheduler
 - c) short-term scheduler
 - d) degree of multiprogramming
9. Which of the following items are shared across multiple threads belonging to the same process? (1)
 - a) Code, Data, Files
 - b) Registers
 - c) Stack
 - d) All of these
10. Which of the following approaches is used by the operating system to maintain control over the CPU? (1)
 - a) Timer
 - b) Swapping
 - c) Scheduling
 - d) Switching
11. In a time-shared operating system, when the time slot assigned to a process is completed, the process switches from the current state to (1)
 - a) ready state
 - b) suspended state
 - c) terminated state
 - d) blocked state
12. In context to communication between processes, is also known as no-buffering. (1)
 - a) zero capacity
 - b) bounded capacity
 - c) unbounded capacity
 - d) automatic buffering
13. Which of the following would lead you to believe that a given system is a symmetric multiprocessing (SMP)-type system? (1)
 - a) Each processor is assigned a specific task.
 - b) There is a boss-worker relationship between the processors.
 - c) Each processor performs all tasks within the operating system.
 - d) None of these
14. operating systems are designed primarily to maximize resource utilization. (1)
 - a) Network
 - b) Mainframe
 - c) Handheld computer
 - d) None of these
15. When a child process is created, which of the following is a possibility in terms of the execution or address space of the child process? (1)
 - a) The child process runs concurrently with the parent.
 - b) The child process has a new program loaded into it.
 - c) The child is a duplicate of the parent.
 - d) All of these
16. Which of the following statements is wrong in context to monolithic kernel? (1)
 - a) User services and kernel services are kept in the same address space.
 - b) Monolithic kernel is smaller than microkernel.
 - c) If a service crashes, the whole system crashes in monolithic kernel.
 - d) The monolithic kernel is hard to extend.
17. Which of the following operating systems is not based on monolithic kernel? (1)
 - a) Linux
 - b) Unix
 - c) Windows 95
 - d) Windows 7
18. An interrupt caused by division by zero is called (1)
 - a) Exception
 - b) Trap
 - c) Trigger
 - d) Error
19. Which of the following are the benefits of multi-threading? (1)
 - a) Responsiveness
 - b) Economy
 - c) Scalability
 - d) All of these
20. In operating system, each process is represented by a (1)
 - a) PCB
 - b) SMP
 - c) CPU
 - d) Message