1. An operating system that supports ____ allows multiple programs to execute concurrently.

   a. Multitasking
   b. Multithreading
   c. virtual memory management
   d. page tables

2. The hardware resources consumed by the resource allocation functions of the kernel are sometimes referred to as ____.

   a. real resources
   b. system overhead
   c. virtual resources
   d. supervisor resources

3. Information about a single process' execution state (e.g., register values, status, etc.) is held in a(n) ____ for use by the scheduler.

   a. run queue
   b. process control block
   c. page table
   d. scheduler

4. Process control blocks are normally organized into a linked list called the ____.

   a. scheduler
   b. process queue
   c. sibling process
   d. page tables

5. A thread in the ____ state requires only access to the CPU to continue execution.

a. blocked
b. running
c. Ready
d. Virtual

6. Under ____ memory allocation, all portions of a process must be loaded into sequential physical memory locations.

a. partitioned memory
b. Non-contiguous
c. contiguous
d. Paged

7. The process of converting an address operand into a physical address within a memory partition or page frame is called ____.

a. multitasking
b. address mapping
c. real-time scheduling
d. preemptive scheduling

8. A significant problem with contiguous memory allocation using fixed size memory partitions is ____.

a. wasted memory
b. compaction
c. system overhead
d. page fault

9. Under virtual memory management, pages not held in primary storage are held in the ____ of a secondary storage device.

a. swap space
b. page table
c. page frame
d. run queue

10. ____ management divides a program into partitions called pages.

a. Partitioned memory
b. Relocatable memory
c. Virtual memory
d. Multithreaded memory

11. A group of processes descended from a common ancestor, including the common ancestor itself, is called a(n) ____.

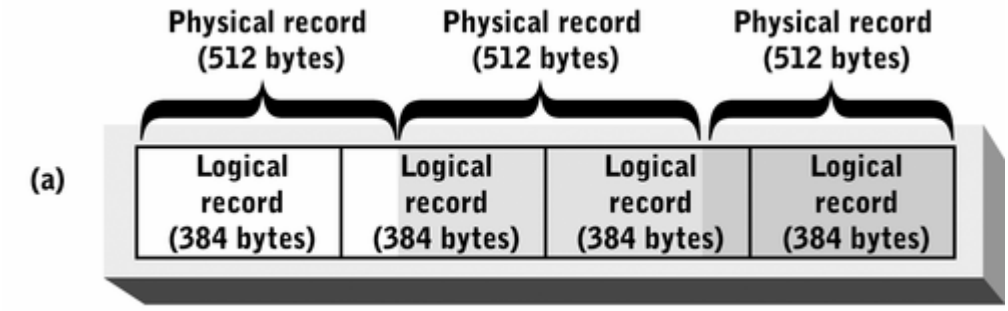
a. spawn
b. process group
c. process family
d. parent process

12. The command layer of the operating system is sometimes called the ____.

a. shell
b. kernel
c. pipe
d. scheduler

13. The storage allocation table records the assignment of ____ to specific files.

a. logical records
b. file control blocks
c. disk blocks
d. allocation units



14. What blocking factor is depicted in the figure?

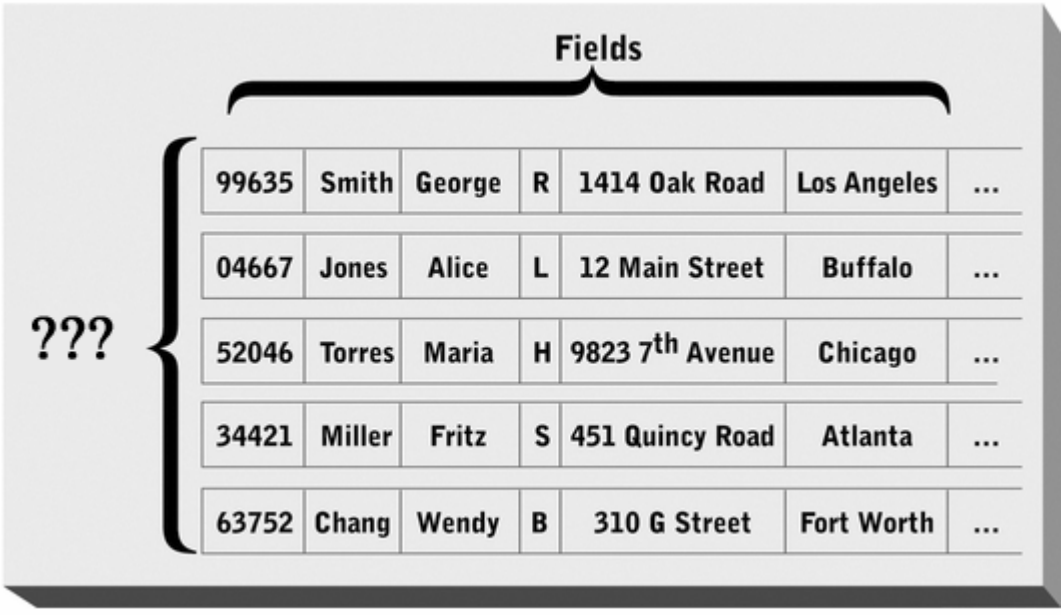
a. 4:3
b. 384:512
c. 2:3
d. 5:3

15. A(n) ____ operation allocates buffers for file I/O and creates a file control block to record information about an active file.

a. file open
b. incremental backup
c. sequential file access
d. transaction logging

16. Under ____, changes to files are written to a log file as they are made.

a. transaction logging
b. incremental backup
c. full backup
d. file migration



17. Each row of data in the figure is a(n) ____.

a. data stripe
b. transaction
c. journal
d. record

18. In most file management or operating systems, a file's type determines ____.

    a. data encoding method
    b. data access method
    c. restrictions on its name
    d. physical storage allocation

19. Consider a 80-GB disk. If unit size is set to 512 bytes, how many allocation units are in the device?

    a. 150,715,200
    b. 156,772,160
    c. 167,772,160
    d. 209,715,200

20. Which of the following file management system layers correspond to the kernel layer of the operating system?

    a. Command
    b. Storage device
    c. Storage I/O control
    d. Storage device