

## QUESTIONS

1. Which of the following disk scheduling algorithms provides the shortest average seek time?
  - A) First-Come, First-Served (FCFS)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
  - D) Circular SCAN (C-SCAN)
2. Which of the following disk scheduling algorithms provides the best performance in terms of avoiding starvation?
  - A) First-Come, First-Served (FCFS)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
  - D) Round Robin (RR)
3. Which of the following disk scheduling algorithms provides better performance for systems with heavy I/O loads?
  - A) First-Come, First-Served (FCFS)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
  - D) Elevator Algorithm
4. Which of the following disk scheduling algorithms provides optimal performance in terms of minimizing the maximum waiting time?
  - A) First-Come, First-Served (FCFS)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
- D) C-SCAN
5. Which of the following disk scheduling algorithms has the potential to cause starvation for some requests?
  - A) First-Come, First-Served (FCFS)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
  - D) C-LOOK
6. Which of the following is not a function of an operating system?
  - A) Resource allocation
  - B) Process management
  - C) Memory management
  - D) Printing documents
7. Which of the following is a preemptive scheduling algorithm?
  - A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Round Robin (RR)
8. Which of the following memory allocation methods requires the entire program to be loaded into main memory before execution?
  - A) Fixed Partitioning
  - B) Variable Partitioning

- C) Paging  
D) Swapping
9. Which of the following scheduling algorithms provides the highest average waiting time?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
10. Which of the following is an example of a mutual exclusion algorithm used to prevent deadlock?  
A) Banker's Algorithm  
B) Page Replacement Algorithm  
C) Disk Scheduling Algorithm  
D) None of the above
11. Which of the following is not a type of operating system?  
A) Batch  
B) Real-time  
C) Time-sharing  
D) Static
12. Which of the following is not a part of process control block (PCB)?  
A) Process state  
B) Program counter  
C) Memory limits  
D) File descriptor
13. Which of the following scheduling algorithms is not preemptive?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Round Robin (RR)
14. Which of the following page replacement algorithms suffers from Belady's Anomaly?  
A) First-In, First-Out (FIFO)  
B) Least Recently Used (LRU)  
C) Optimal Page Replacement  
D) Second Chance Algorithm
15. Which of the following is an example of a non-preemptive scheduling algorithm?  
A) Shortest Job First (SJF)  
B) Priority Scheduling  
C) Round Robin (RR)  
D) Both A and B
16. Which of the following is not a type of file organization?  
A) Sequential  
B) Indexed Sequential  
C) Direct  
D) Random
17. Which of the following memory allocation methods allows a process to use more memory than is physically available in main memory?  
A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging  
D) Swapping

- 18. Which of the following deadlock prevention algorithms works by making sure that each process requests and receives all of its required resources before it begins execution?**
- A) Banker's Algorithm  
B) Wait-Die Algorithm  
C) Wound-Wait Algorithm  
D) None of the above
- 19. Which of the following is not a part of CPU scheduling?**
- A) Dispatcher  
B) Long-term Scheduler  
C) Short-term Scheduler  
D) Medium-term Scheduler
- 20. Which of the following is an example of a non-preemptive page replacement algorithm?**
- A) First-In, First-Out (FIFO)  
B) Least Recently Used (LRU)  
C) Optimal Page Replacement  
D) Second Chance Algorithm
- 21. Which of the following is not an example of a secondary storage device?**
- A) Hard disk  
B) USB flash drive  
C) CD-ROM  
D) RAM
- 22. Which of the following is responsible for managing and allocating CPU resources to processes?**
- A) Memory Manager  
B) Disk Scheduler  
C) CPU Scheduler  
D) Input/Output Manager
- 23. Which of the following is an example of a non-preemptive scheduling algorithm?**
- A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Round Robin (RR)
- 24. Which of the following memory allocation methods allows processes to occupy any available space in memory, regardless of its size?**
- A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging  
D) Swapping
- 25. Which of the following is not a type of process synchronization mechanism?**
- A) Semaphores  
B) Mutexes  
C) Barriers  
D) Registers
- 26. Which of the following is an example of a system call used for process creation?**
- A) fork()  
B) exec()  
C) wait()  
D) exit()

- 27. Which of the following is a common example of a scheduling algorithm used by the Linux operating system? A)**
- A) Shortest Job First (SJF)
  - B) Priority Scheduling
  - C) Completely Fair Scheduler (CFS)
  - D) Round Robin (RR)
- 28. Which of the following is an example of a file system used by the Windows operating system?**
- A) NTFS
  - B) ext4
  - C) FAT32
  - D) HFS+
- 29. Which of the following is not a benefit of using virtual memory?**
- A) Allows more programs to run simultaneously
  - B) Reduces overall system performance
  - C) Allows programs to run that are larger than available physical memory
  - D) Protects memory from unauthorized access
- 30. Which of the following is an example of a shell program commonly used in Unix-based operating systems?**
- A) cmd.exe
  - B) PowerShell
- C) Terminal**
- D) Command Prompt**
- 31. What is the purpose of an operating system?**
- A) To provide a graphical user interface (GUI)
  - B) To provide a compiler for programming languages
  - C) To manage hardware resources and provide a platform for software applications
  - D) To provide backup and restore capabilities
- 32. Which of the following scheduling algorithms is non-preemptive?**
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Round Robin (RR)
- 33. What is the function of a file system?**
- A) To provide a platform for software applications
  - B) To manage hardware resources
  - C) To organize and manage files and directories
  - D) To provide security for the operating system
- 34. Which of the following is not a type of process**

**synchronization mechanism?**

- A) Semaphores
- B) Mutexes
- C) Spinlocks
- D) Forks

**35. What is the purpose of virtual memory?**

- A) To increase the size of main memory
- B) To decrease the size of main memory
- C) To provide faster access to memory
- D) To provide a backup copy of memory

**36. Which of the following is not a memory management scheme?**

- A) Paging
- B) Segmentation
- C) Fragmentation
- D) Swapping

**37. What is the function of a device driver?**

- A) To manage hardware resources
- B) To provide a platform for software applications
- C) To organize and manage files and directories
- D) To provide security for the operating system

**38. Which of the following is not an example of a system call? A)**

- Open
- B) Read
- C) Write
- D) Sort

**39. What is the purpose of a process control block (PCB)? A)**

- To manage hardware resources
- B) To organize and manage files and directories
- C) To store information about a process
- D) To provide security for the operating system

**40. Which of the following is not a type of file access method? A)**

- Sequential
- B) Random
- C) Direct
- D) Round Robin

**41. Which of the following is not a layer of the Operating System?**

- A) Application
- B) Kernel
- C) Library
- D) Compiler

**42. Which of the following scheduling algorithms gives priority to jobs with a higher priority number?**

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling

- D) Round Robin (RR)
43. Which of the following is the correct order of the interrupt handling process?
- A) Interrupt Occurs -> Interrupt Service Routine -> Context Switch
  - B) Context Switch -> Interrupt Occurs -> Interrupt Service Routine
  - C) Interrupt Service Routine -> Interrupt Occurs -> Context Switch
  - D) Interrupt Service Routine -> Context Switch -> Interrupt Occurs
44. Which of the following is not a type of file organization?
- A) Sequential
  - B) Direct
  - C) Indexed
  - D) Binary
45. Which of the following is a type of memory that is used to store frequently accessed data and instructions?
- A) Virtual Memory
  - B) Cache Memory
  - C) Secondary Memory
  - D) Main Memory
46. Which of the following memory allocation methods does not require relocation? A)
- A) Fixed Partitioning
  - B) Variable Partitioning
- C) Paging
- D) Swapping
47. Which of the following deadlock avoidance algorithms requires a set of a priori information about the resources that each process will need?
- A) Banker's Algorithm
  - B) Page Replacement Algorithm
  - C) Disk Scheduling Algorithm
  - D) None of the above
48. Which of the following scheduling algorithms provides the best average turnaround time?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Round Robin (RR)
  - D) Priority Scheduling
49. Which of the following is not an advantage of using virtual memory?
- A) Allows for efficient use of main memory
  - B) Provides a means of sharing memory between processes
  - C) Reduces the size of the program
  - D) Improves program execution speed

50. Which of the following is an example of a real-time operating system?
- A) Windows
  - B) Linux
  - C) macOS
  - D) VxWorks
51. What is the primary function of an operating system?
- A) Manage hardware resources
  - B) Manage software resources
  - C) Manage both hardware and software resources
  - D) None of the above
52. Which of the following scheduling algorithms can cause starvation?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Round Robin (RR)
53. Which of the following memory allocation methods allows for dynamic allocation of memory?
- A) Fixed Partitioning
  - B) Variable Partitioning
  - C) Paging
  - D) Swapping
54. Which of the following memory management techniques allows multiple programs to be loaded into memory at the same time? A)
- Fixed Partitioning
  - B) Variable Partitioning
  - C) Paging
  - D) Swapping
55. Which of the following is not a part of process management?
- A) Process scheduling
  - B) Process synchronization
  - C) Process creation and termination
  - D) Memory management
56. Which of the following is a mechanism used to prevent deadlocks?
- A) Mutual exclusion
  - B) Hold and wait
  - C) No preemption
  - D) Circular wait
57. Which of the following is a mechanism used to allocate resources in a system while preventing deadlocks?
- A) Banker's Algorithm
  - B) Page Replacement Algorithm
  - C) Disk Scheduling Algorithm
  - D) All of the above
58. Which of the following is an example of a file management system?
- A) FAT32
  - B) TCP/IP
  - C) HTTP
  - D) SMTP

59. Which of the following is an example of a real-time operating system?
- A) Windows
  - B) Linux
  - C) QNX
  - D) Android
60. Which of the following is an example of a system call?
- A) print()
  - B) malloc()
  - C) free()
  - D) All of the above
61. Which of the following is not a type of process state in an operating system?
- A) Running
  - B) Waiting
  - C) Suspended
  - D) Restarted
62. Which of the following is a page replacement algorithm used in virtual memory management?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Least Recently Used (LRU)
  - D) Round Robin (RR)
63. Which of the following file allocation methods allows files to be stored in non-contiguous blocks on a disk?
- A) Contiguous Allocation
  - B) Linked Allocation

- C) Indexed Allocation
- D) None of the above
64. Which of the following is an example of a deadlock avoidance algorithm?
- A) Banker's Algorithm
  - B) LRU Algorithm
  - C) First-Come, First-Served (FCFS) Algorithm
  - D) Round Robin (RR) Algorithm
65. Which of the following is not a type of memory used in an operating system?
- A) Main Memory
  - B) Cache Memory
  - C) Virtual Memory
  - D) Magnetic Memory
66. Which of the following scheduling algorithms provides the highest turnaround time for a process?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Round Robin (RR)
67. Which of the following memory allocation methods allows processes to be loaded into memory as needed and can adjust to changes in memory requirements?
- A) Fixed Partitioning
  - B) Variable Partitioning
  - C) Paging

68. Which of the following is not an example of a system call in an operating system?  
A) open()  
B) read()  
C) write()  
D) swapping
69. Which of the following is a storage device commonly used in solid-state drives?  
A) Hard Disk Drive (HDD)  
B) Compact Disk (CD)  
C) Blu-ray Disk (BD)  
D) NAND Flash Memory
70. Which of the following is not a type of file access permission in an operating system?  
A) Read  
B) Write  
C) Execute  
D) Delete
71. Which of the following is the correct definition of an operating system?  
A) A hardware component that connects a computer to a network  
B) A software component that manages computer hardware and software resources  
C) A programming language used to create computer applications
72. Which of the following is not a type of operating system? A)  
Real-time operating system B)  
Batch operating system  
C) Multiprogramming operating system  
D) Web-based operating system
73. Which of the following is a common scheduling algorithm used in operating systems?  
A) Divide and Conquer  
B) Bubble Sort  
C) First-Come, First-Served (FCFS)  
D) Linear Search
74. Which of the following is not a function of an operating system?  
A) Resource management  
B) Memory management  
C) Process management  
D) Compiler management
75. Which of the following is not an example of a file system used by operating systems? A)  
FAT  
B) NTFS  
C) JPEG  
D) ext4
76. Which of the following is not a type of process synchronization technique

- used in operating systems? A)
- Semaphores
  - B) Monitors
  - C) Barriers
  - D) Threads
77. Which of the following is not a method used by an operating system to manage memory?
- A) Virtual memory
  - B) Paging
  - C) Swapping
  - D) Fragmentation
78. Which of the following is an example of a device driver used by an operating system?
- A) Browser
  - B) Printer driver
  - C) Video game
  - D) Word processor
79. Which of the following is a security feature provided by modern operating systems? A)
- Firewall
  - B) Anti-virus software
  - C) Password manager
  - D) All of the above
80. Which of the following is not an example of a graphical user interface (GUI) used by an operating system?
- A) Windows Explorer
  - B) Finder
  - C) Command Prompt
  - D) GNOME
81. Which of the following is not a function of an operating system?
- A) Resource allocation
  - B) Process management
  - C) Memory management
  - D) File sharing
82. Which of the following is a non-preemptive scheduling algorithm?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Round Robin (RR)
83. Which of the following memory allocation methods allows for efficient use of memory and does not require the entire program to be loaded into main memory?
- A) Fixed Partitioning
  - B) Variable Partitioning
  - C) Paging
  - D) Swapping
84. Which of the following scheduling algorithms provides the shortest average turnaround time?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Round Robin (RR)
  - D) Priority Scheduling

85. Which of the following is an example of a deadlock prevention algorithm?

- A) Banker's Algorithm
- B) Page Replacement Algorithm
- C) Disk Scheduling Algorithm
- D) None of the above

86. Which of the following scheduling algorithms is not suitable for interactive systems?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling
- D) Round Robin (RR)

87. Which of the following is not a common method of interprocess communication?

- A) Shared memory
- B) Message passing
- C) Mutual exclusion
- D) Semaphore

88. Which of the following is a kernel-level thread?

- A) User-level thread
- B) Light-weight thread
- C) Heavy-weight thread
- D) None of the above

89. Which of the following is not a type of system call?

- A) Process Control
- B) File Management
- C) Memory Management
- D) Algorithm Execution

90. Which of the following scheduling algorithms provides a balance between response time and throughput?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Round Robin (RR)
- D) Priority Scheduling

91. Which of the following is not a type of operating system?

- A) Batch operating system
- B) Real-time operating system
- C) Time-sharing operating system
- D) Object-oriented operating system

92. Which of the following memory management schemes requires all memory be divided into fixed-sized partitions, regardless of the size of the process?

- A) Dynamic Partitioning
- B) Fixed Partitioning
- C) Paging
- D) Swapping

93. Which of the following scheduling algorithms gives priority to the process with the highest priority level?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Round Robin (RR)

- D) Priority Scheduling
94. Which of the following is an example of a kernel?
- A) Windows Explorer
  - B) Calculator
  - C) Task Manager
  - D) None of the above
95. Which of the following is not a method used to prevent deadlocks?
- A) Resource allocation graphs
  - B) Banker's algorithm
  - C) Page replacement algorithms
  - D) None of the above
96. Which of the following is an example of a non-preemptive scheduling algorithm?
- A) Round Robin (RR)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) All of the above
97. Which of the following is an example of a file system used in Linux operating systems? A)
- NTFS
  - B) HFS+
  - C) ext4
  - D) FAT32
98. Which of the following is a benefit of virtual memory?
- A) Reduced disk space usage
  - B) Increased program execution time
  - C) Increased system stability
  - D) None of the above
99. Which of the following is not a state that a process can be in?
- A) Running
  - B) Ready
  - C) Waiting
  - D) Interrupted
100. Which of the following is not a system call?
- A) read()
  - B) write()
  - C) exec()
  - D) malloc()
101. Which of the following is not a type of operating system?
- A) Batch OS
  - B) Time-sharing OS
  - C) Network OS
  - D) Program OS
102. Which of the following is responsible for coordinating the activities and sharing of resources between processes in an operating system?
- A) File system
  - B) Kernel
  - C) Shell
  - D) Registry
103. Which of the following is a memory management scheme where a process is broken down into fixed-sized blocks and the blocks are scattered throughout memory?
- A) Paging

- 104.** Which of the following is not a process scheduling algorithm?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) File Allocation Table (FAT)
- 105.** Which of the following is an example of an inter-process communication mechanism used in operating systems?  
A) Virtual memory  
B) Interrupts  
C) Signals  
D) Page faults
- 106.** Which of the following is responsible for managing input and output operations in an operating system?  
A) File system  
B) Kernel  
C) Shell  
D) Device driver
- 107.** Which of the following is not a type of deadlock prevention algorithm?  
A) Banker's Algorithm  
B) Resource Allocation Graph  
C) Wait-for Graph  
D) Round Robin
- 108.** Which of the following is a way to protect memory access between multiple processes in an operating system?  
A) Page replacement  
B) Virtual memory  
C) Segmentation  
D) Address translation
- 109.** Which of the following is responsible for translating a user's command into machine language that the computer can understand?  
A) File system  
B) Kernel  
C) Shell  
D) Registry
- 110.** Which of the following is a method used by an operating system to manage multiple processes running concurrently on a computer?  
A) Paging  
B) Segmentation  
C) Time-sharing  
D) Swapping
- 111.** What is the function of an operating system?  
A) To provide users with a graphical user interface (GUI)  
B) To manage computer hardware resources  
C) To run applications and programs  
D) All of the above
- 112.** Which of the following is an example of a non-

- preemptive scheduling algorithm?**
- A) Shortest Job First (SJF)
  - B) Priority Scheduling
  - C) Round Robin (RR)
  - D) All of the above
- 113. Which of the following is not a type of page replacement algorithm?**
- A) First-In, First-Out (FIFO)
  - B) Least Recently Used (LRU)
  - C) Random
  - D) All of the above are types of page replacement algorithms
- 114. Which of the following is not a benefit of virtual memory?**
- A) It allows for larger programs to run
  - B) It allows for more efficient use of memory
  - C) It reduces the overall cost of memory
  - D) It speeds up the CPU clock rate
- 115. Which of the following is not a type of deadlock prevention algorithm?**
- A) Banker's Algorithm
  - B) Resource Allocation Graph
  - C) Wait-for Graph
  - D) None of the above
- 116. Which of the following is an example of a system call?**
- A) malloc()
  - B) printf()
  - C) fork()
  - D) All of the above
- 117. Which of the following is an example of a process state?**
- A) Ready
  - B) Running
  - C) Waiting
  - D) All of the above
- 118. Which of the following is an example of a race condition?**
- A) A file being accessed by multiple processes
  - B) A critical section being accessed by multiple threads
  - C) A deadlock occurring between two processes
  - D) None of the above
- 119. Which of the following is an example of a synchronization primitive used to prevent race conditions?**
- A) Semaphores
  - B) Mutexes
  - C) Condition Variables
  - D) All of the above
- 120. Which of the following is not a component of the CPU?**
- A) Control Unit
  - B) Arithmetic Logic Unit (ALU)
  - C) Memory Unit
  - D) All of the above are components of the CPU

- 121.** Which of the following is not a component of an operating system?
- A) Kernel
  - B) Shell
  - C) Compiler
  - D) Device Drivers
- 122.** Which of the following is a non-preemptive scheduling algorithm?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Round Robin (RR)
- 123.** Which of the following memory allocation methods allows processes to be allocated memory in non-contiguous blocks?
- A) Fixed Partitioning
  - B) Variable Partitioning
  - C) Paging
  - D) Swapping
- 124.** Which of the following scheduling algorithms provides the shortest average turnaround time?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Round Robin (RR)
  - D) Priority Scheduling
- 125.** Which of the following is an example of a page replacement algorithm used in virtual memory management?
- A) First-In, First-Out (FIFO)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
  - D) Elevator Algorithm
- 126.** Which of the following is an example of a synchronization mechanism used to prevent race conditions?
- A) Semaphores
  - B) Virtual Memory
  - C) Round Robin Scheduling
  - D) Disk Scheduling
- 127.** Which of the following is an example of a deadlock avoidance algorithm?
- A) Banker's Algorithm
  - B) Least Recently Used (LRU)
  - C) C-SCAN
  - D) First-Come, First-Served (FCFS)
- 128.** Which of the following is not a type of file system used by modern operating systems?
- A) FAT32
  - B) NTFS
  - C) EXT4
  - D) ISO
- 129.** Which of the following is an example of a process scheduling algorithm used by multiprocessor systems?

- A) Round Robin (RR)  
B) Shortest Job First (SJF)  
C) First-Come, First-Served (FCFS)  
D) Earliest Deadline First (EDF)
130. Which of the following is not an advantage of virtual memory?  
A) Increased program execution speed  
B) Reduced overall memory usage  
C) Improved process isolation  
D) Decreased number of I/O operations
131. What is the function of a kernel in an operating system?  
A) To manage hardware resources  
B) To execute application programs  
C) To provide a user interface  
D) To manage memory allocation
132. Which of the following scheduling algorithms is non-preemptive?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
133. Which of the following memory allocation methods allows for the relocation of programs in memory during execution?  
A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging  
D) Swapping
134. What is the purpose of virtual memory?  
A) To provide additional physical memory to the system  
B) To manage the allocation of physical memory  
C) To allow programs to execute without being fully loaded into memory  
D) To provide a backup in case of physical memory failure
135. Which of the following scheduling algorithms provides better response time for interactive systems?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
136. Which of the following memory allocation methods requires that all memory requests be of equal size?  
A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging  
D) Swapping
137. Which of the following is not a component of the

- process control block (PCB)? A)**  
Program counter  
B) CPU registers  
C) Process state  
D) Disk quota

- 138. What is the purpose of a file system in an operating system?**  
A) To manage hardware resources  
B) To provide a user interface C)  
To manage memory allocation  
D) To manage file storage and retrieval

- 139. Which of the following is an example of a deadlock prevention algorithm?**  
A) Banker's Algorithm  
B) Page Replacement Algorithm  
C) Disk Scheduling Algorithm D)  
Round Robin (RR)

- 140. Which of the following is an example of a system call? A)**  
printf()  
B) if statement  
C) while loop  
D) switch statement

- 141. Which of the following is an example of a non-preemptive scheduling algorithm?**  
A) Round Robin (RR)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) All of the above

**142. Which of the following is a memory allocation method that can result in external fragmentation?**

- A) Paging  
B) Swapping  
C) Fixed Partitioning  
D) None of the above

- 143. Which of the following is an example of a CPU scheduling algorithm that does not consider process priorities?**  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Round Robin (RR)

- 144. Which of the following is not a type of process synchronization mechanism?**  
A) Semaphores  
B) Mutexes  
C) Monitors  
D) File allocation tables

- 145. Which of the following scheduling algorithms is commonly used in real-time systems?**

- A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Round Robin (RR)

- 146. Which of the following is a memory management**

- technique that allows multiple processes to share a single physical memory location?
- A) Swapping
  - B) Paging
  - C) Segmentation
  - D) Fragmentation
147. Which of the following is an example of a file system commonly used in Linux operating systems?
- A) FAT32
  - B) NTFS
  - C) HFS+
  - D) ext4
148. Which of the following is an example of a deadlock avoidance algorithm?
- A) Banker's Algorithm
  - B) Page Replacement Algorithm
  - C) Disk Scheduling Algorithm
  - D) None of the above
149. Which of the following is a memory allocation method that can dynamically allocate memory to processes as needed?
- A) Fixed Partitioning
  - B) Variable Partitioning
  - C) Swapping
  - D) Paging
150. Which of the following is an example of a device scheduling algorithm used by an operating system to schedule requests for access to a device?
- A) FCFS
  - B) SJF
  - C) SCAN
  - D) LRU
151. What is the purpose of an operating system?
- A) To manage the hardware resources of a computer
  - B) To provide a platform for application software to run on
  - C) Both A and B
  - D) None of the above
152. Which of the following is an example of a non-preemptive scheduling algorithm?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Round Robin (RR)
  - D) Priority Scheduling
153. Which of the following is not a valid state for a process in an operating system?
- A) Running
  - B) Waiting
  - C) Ready
  - D) Paused
154. Which of the following memory allocation methods allows for fragmentation?
- A) Fixed Partitioning
  - B) Variable Partitioning

- C) Paging
- D) Swapping

155. Which of the following scheduling algorithms provides the highest turnaround time?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Round Robin (RR)
- D) Priority Scheduling

156. Which of the following is an example of a page replacement algorithm?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Least Recently Used (LRU)
- D) Priority Scheduling

157. Which of the following is not a valid process state transition in an operating system?

- A) Running to Waiting
- B) Ready to Running
- C) Waiting to Paused
- D) Paused to Ready

158. Which of the following is not a valid memory management technique?

- A) Segmentation
- B) Paging
- C) Fragmentation
- D) Swapping

159. Which of the following scheduling algorithms is

designed to prevent starvation?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling
- D) Round Robin (RR)

160. Which of the following is an example of a deadlock prevention algorithm?

- A) Banker's Algorithm
- B) Page Replacement Algorithm
- C) Disk Scheduling Algorithm
- D) None of the above

161. Which of the following is an example of a non-preemptive scheduling algorithm?

- A) Shortest Job First (SJF)
- B) Priority Scheduling
- C) Round Robin (RR)
- D) Both A and B

162. Which of the following memory allocation methods allows for efficient use of memory by allocating memory blocks of variable sizes?

- A) Fixed Partitioning
- B) Variable Partitioning
- C) Paging
- D) Swapping

163. Which of the following is not an advantage of virtual memory?

- A) More efficient use of main memory  
B) Allows for larger programs to be executed  
C) Reduces the number of page faults  
D) Eliminates the need for secondary storage
- 164. Which of the following is an example of a race condition?**
- A) Two processes trying to access a shared resource at the same time  
B) A process waiting for another process to release a resource  
C) A deadlock situation where no process can proceed  
D) None of the above
- 165. Which of the following is not a common CPU scheduling algorithm?**
- A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Least Recently Used (LRU)
- 166. Which of the following is an example of a process synchronization primitive?**
- A) Mutex  
B) Semaphore  
C) Monitor  
D) All of the above
- 167. Which of the following is not a type of file organization?**
- A) Sequential  
B) Indexed Sequential  
C) Direct  
D) Hierarchical
- 168. Which of the following is an example of a process state?**
- A) Running  
B) Ready  
C) Blocked  
D) All of the above
- 169. Which of the following is an example of a deadlock prevention algorithm?**
- A) Banker's Algorithm  
B) Page Replacement Algorithm  
C) Disk Scheduling Algorithm  
D) None of the above
- 170. Which of the following is not a type of system call?**
- A) Process Control  
B) File Management  
C) Memory Management  
D) Database Management
- 171. Which of the following is not a state of a process?**
- A) Running  
B) Waiting  
C) Suspended  
D) Ready
- 172. Which of the following memory allocation methods allows the memory space to be**

split into variable-sized partitions?

- A) Fixed Partitioning
- B) Variable Partitioning
- C) Paging
- D) Swapping

173. Which of the following scheduling algorithms provides the shortest average turnaround time?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling
- D) Round Robin (RR)

174. Which of the following is an example of a non-preemptive scheduling algorithm?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling
- D) Round Robin (RR)

175. Which of the following is a method of deadlock prevention?

- A) Resource Allocation Graph (RAG)
- B) Banker's Algorithm
- C) Timeouts
- D) All of the above

176. Which of the following memory management techniques allows the memory

space to be dynamically allocated and deallocated as needed?

- A) Fixed Partitioning
- B) Variable Partitioning
- C) Paging
- D) Swapping

177. Which of the following scheduling algorithms provides the best response time for interactive applications?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling
- D) Round Robin (RR)

178. Which of the following is an example of a page replacement algorithm?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) LRU (Least Recently Used)
- D) Round Robin (RR)

179. Which of the following is not a type of system call?

- A) Process Control
- B) File Management
- C) Input/Output
- D) Disk Scheduling

180. Which of the following is an example of a scheduling algorithm used for real-time systems?

- A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Earliest Deadline First (EDF)
181. Which of the following is not an operating system?  
A) Windows  
B) iOS  
C) Chrome  
D) Adobe Photoshop
182. Which of the following is responsible for managing input/output operations in an operating system?  
A) CPU Scheduler  
B) Memory Manager  
C) Device Manager  
D) File Manager
183. Which of the following scheduling algorithms provides the highest throughput?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
184. Which of the following memory allocation methods requires the size of the program to be known in advance?  
A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging
- D) Swapping
185. Which of the following is not a state of a process in an operating system?  
A) Running  
B) Ready  
C) Waiting  
D) Completed
186. Which of the following disk scheduling algorithms provides better performance for systems with heavy I/O loads?  
A) First-Come, First-Served (FCFS)  
B) Shortest Seek Time First (SSTF)  
C) SCAN  
D) Elevator Algorithm
187. Which of the following is a non-preemptive scheduling algorithm?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Priority Scheduling  
D) Round Robin (RR)
188. Which of the following is responsible for translating virtual memory addresses to physical memory addresses? A) CPU Scheduler  
B) Memory Manager  
C) Device Manager  
D) File Manager

189. Which of the following is not a function of a file system?  
A) Creating and deleting files  
B) Managing memory allocation  
C) Reading and writing data  
D) Managing permissions and access control
190. Which of the following is an example of a deadlock prevention algorithm?  
A) Banker's Algorithm  
B) Page Replacement Algorithm  
C) Disk Scheduling Algorithm  
D) None of the above
191. Which of the following is a function of an operating system?  
A) Resource allocation  
B) Process management  
C) File management  
D) All of the above
192. Which of the following scheduling algorithms provides the shortest average waiting time?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
193. Which of the following memory allocation methods allows processes to be allocated memory as needed?  
A) Fixed Partitioning
- B) Variable Partitioning  
C) Paging  
D) Swapping
194. Which of the following is not a type of process state? A)  
Running  
B) Ready  
C) Suspended  
D) Completed
195. Which of the following is not a common deadlock prevention technique?  
A) Resource allocation graph  
B) Banker's algorithm  
C) Timeouts  
D) Starvation
196. Which of the following file systems is commonly used in Linux?  
A) FAT32  
B) NTFS  
C) Ext4  
D) HFS+
197. Which of the following is not a benefit of using virtual memory?  
A) Increased program size  
B) Protection of system processes  
C) Reduced memory fragmentation  
D) Decreased disk I/O
198. Which of the following is not an example of a system call?

- A) fork()
- B) exec()
- C) malloc()
- D) open()

**199.** Which of the following is not an example of a network operating system?

- A) Windows Server
- B) Linux
- C) macOS Server
- D) Android

**200.** Which of the following is not a type of CPU scheduling algorithm?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Priority Scheduling
- D) Least Recently Used (LRU)

**201.** Which of the following is the correct definition of an operating system?

- A) A software that manages hardware components of a computer
- B) A software that allows users to interact with hardware components of a computer
- C) A software that provides services to other software programs
- D) A software that provides security to a computer

**202.** Which of the following scheduling algorithms is

designed to reduce the average waiting time of processes?

- A) First-Come, First-Served (FCFS)
- B) Shortest Job First (SJF)
- C) Round Robin (RR)
- D) Priority Scheduling

**203.** Which of the following memory allocation methods divides memory into variable-sized partitions based on the size of the program?

- A) Fixed Partitioning
- B) Variable Partitioning
- C) Paging
- D) Swapping

**204.** Which of the following is an example of a process synchronization technique used to prevent race conditions?

- A) Semaphores
- B) Round Robin (RR)
- C) First-Come, First-Served (FCFS)
- D) Priority Scheduling

**205.** Which of the following is not a type of process state in an operating system?

- A) Ready
- B) Running
- C) Stopped
- D) Suspended

- 206.** Which of the following is not an advantage of using virtual memory?
- A) Increased memory utilization
  - B) Ability to run more processes simultaneously
  - C) Reduced response time for processes
  - D) Reduced need for physical memory
- 207.** Which of the following disk scheduling algorithms provides guaranteed service to every request?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Seek Time First (SSTF)
  - C) SCAN
  - D) C-LOOK
- 208.** Which of the following is not an advantage of using multithreading?
- A) Increased responsiveness of user interface
  - B) Increased utilization of CPU
  - C) Simplified program structure
  - D) Reduced memory usage
- 209.** Which of the following is a common technique used to reduce the overhead of context switching in an operating system?
- A) Process suspension
  - B) Process migration

- 210.** Which of the following is not an example of a system call?
- A) Read
  - B) Write
  - C) Sort
  - D) Open
- 211.** Which of the following is the function of the kernel in an operating system?
- A) Provide a graphical user interface
  - B) Manage the CPU and memory resources
  - C) Provide application programming interfaces (APIs)
  - D) None of the above
- 212.** Which of the following scheduling algorithms is used in real-time systems?
- A) First-Come, First-Served (FCFS)
  - B) Shortest Job First (SJF)
  - C) Priority Scheduling
  - D) Rate Monotonic Scheduling (RMS)
- 213.** Which of the following is a mechanism used by the operating system to prevent multiple processes from accessing the same resource simultaneously?
- A) Mutual exclusion

- B) Deadlock avoidance  
C) Synchronization  
D) None of the above
214. Which of the following is a technique used by the operating system to reduce the number of page faults? A) Least Recently Used (LRU) algorithm  
B) First-In, First-Out (FIFO) algorithm  
C) Both A and B  
D) None of the above
215. Which of the following memory allocation methods allows a process to occupy any available partition in main memory?  
A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging  
D) Swapping
216. Which of the following scheduling algorithms provides the lowest average waiting time?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
217. Which of the following mechanisms is used by the operating system to manage access to shared resources? A) Locking
- B) Semaphores  
C) Monitors  
D) All of the above
218. Which of the following is a technique used by the operating system to reduce external fragmentation?  
A) Compaction  
B) Paging  
C) Swapping  
D) None of the above
219. Which of the following is an example of a process synchronization problem?  
A) Producer-Consumer problem  
B) Dining Philosophers problem  
C) Both A and B  
D) None of the above
220. Which of the following algorithms is used by the operating system to allocate resources to processes in a safe manner?  
A) Banker's Algorithm  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
221. Which of the following is an example of a non-preemptive scheduling algorithm?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)

- C) Priority Scheduling  
D) Round Robin (RR)
222. Which of the following is not a component of a process control block (PCB)?  
A) Process state  
B) Process priority  
C) Process address space  
D) Process speed
223. Which of the following memory allocation methods allows processes to grow or shrink dynamically during execution?  
A) Fixed Partitioning  
B) Variable Partitioning  
C) Paging  
D) Swapping
224. Which of the following scheduling algorithms provides the lowest average waiting time?  
A) First-Come, First-Served (FCFS)  
B) Shortest Job First (SJF)  
C) Round Robin (RR)  
D) Priority Scheduling
225. Which of the following is not a type of file access method?  
A) Sequential  
B) Direct  
C) Indexed  
D) Distributed

# ANSWER SHEET

1	B	2	D	3	D	4	B	5	A	6	D	7	D	8	A	9
10	A	11	D	12	D	13	A	14	A	15	D	16	D	17	C	18
19	D	20	A	21	D	22	C	23	A	24	B	25	D	26	A	27
28	A	29	B	30	C	31	C	32	A	33	C	34	D	35	A	36
37	A	38	D	39	C	40	D	41	D	42	C	43	A	44	D	45
46	A	47	A	48	B	49	D	50	D	51	C	52	A	53	B	54
55	D	56	A	57	A	58	A	59	C	60	D	61	D	62	C	63
64	A	65	D	66	A	67	C	68	D	69	D	70	D	71	B	72
73	C	74	D	75	C	76	C	77	D	78	B	79	D	80	C	81
82	A	83	C	84	B	85	A	86	A	87	C	88	C	89	D	90
91	D	92	B	93	D	94	D	95	C	96	B	97	C	98	C	99
100	D	101	D	102	B	103	B	104	D	105	C	106	D	107	D	108
109	C	110	C	111	B	112	A	113	D	114	D	115	D	116	C	117
118	B	119	D	120	C	121	C	122	A	123	C	124	B	125	A	126
127	A	128	D	129	D	130	D	131	A	132	A	133	B	134	C	135
136	A	137	D	138	D	139	A	140	A	141	B	142	C	145	A	144
145	D	146	C	147	D	148	A	149	B	150	A	151	C	152	A	153
154	B	155	A	156	C	157	C	158	C	159	C	160	A	161	D	162
163	D	164	A	165	D	166	D	167	D	168	D	169	A	170	D	171
172	B	173	B	174	A	175	D	176	B	177	D	178	C	179	D	180
181	D	182	C	183	C	184	A	185	D	186	D	187	A	188	B	189
190	A	191	D	192	B	193	B	194	D	195	D	196	C	197	D	198
199	D	200	D	201	C	202	B	203	B	204	A	205	C	206	C	207
208	D	209	A	210	C	211	B	212	D	213	A	214	B	215	B	216
217	D	218	A	219	C	220	A	221	A	222	D	223	B	224	B	225