Multiple Choice OS - Nil

Operating Systems (University of the Punjab)

Multiple Choice OS:

Chapter 1 to 4 :

1. Which of the following is NOT an example of an operating system? A. Windows B. Linux C. macOS D. Microsoft Office

Answer: D

2. Which of the following is NOT a function of an operating system? A. Resource allocation B. User interface C. Process management D. All of the above are functions of an operating system

Answer: D

Chapter 2:

3. Which of the following is NOT a type of system call? A. Process control B. Memory allocation C. File management D. Device management

Answer: B

4. Which of the following is an example of a non-blocking system call? A. read() B. write() C. open() D. close()

Answer: B

Chapter 3:

5. Which of the following scheduling algorithms is non-preemptive? A. Round Robin B. Shortest Job First C. Priority Scheduling D. All of the above

Answer: B

6. Which of the following is a disadvantage of First-Come, First-Served (FCFS) scheduling? A. It may result in poor response time for interactive applications B. It may cause low-priority processes to starve C. It may cause high-priority processes to starve D. None of the above

Answer: A

Chapter 4:

7. Which of the following is NOT a type of memory allocation? A. Static allocation B. Dynamic allocation C. Stack allocation D. All of the above are types of memory allocation

Answer: D

8. Which of the following is a disadvantage of fragmentation in memory allocation? A. It may cause inefficient use of memory B. It may cause memory leaks C. It may cause a decrease in system performance D. All of the above

Answer: A

What Operating Systems Do:

1. What is the primary function of an operating system? A) To execute applications B) To manage system resources C) To provide a user interface D) To provide security
2. Which of the following is not a type of operating system? A) Batch B) Time-sharing C) Real-time D) Object-oriented
3. Which of the following is not a characteristic of a real-time operating system? A) Predictable response time B) High throughput C) Low latency D) High availability

Computer-System Organization:

1. What is the main purpose of the CPU? A) To manage system resources B) To execute instructions C) To store data D) To provide a user interface
2. What is the purpose of the memory hierarchy? A) To improve system performance B) To provide security C) To manage system resources D) To execute applications
3. Which of the following is not a component of the I/O subsystem? A) Device driver B) Interrupt handler C) System call D) Kernel

Computer-System Architecture:

1. What is the difference between von Neumann architecture and Harvard architecture? A) Von Neumann architecture has separate memory spaces for data and instructions, while Harvard architecture has a single memory space for both. B) Von Neumann architecture has a single memory space for both

data and instructions, while Harvard architecture has separate memory spaces for each. C) Von Neumann architecture uses pipelining, while Harvard architecture does not. D) Von Neumann architecture uses cache memory, while Harvard architecture does not.
2. What is the purpose of the system bus? A) To connect the CPU and the memory B) To connect the CPU and the I/O devices C) To connect the memory and the I/O devices D) To connect the CPU, memory, and I/O devices
3. Which of the following is not a type of I/O device? A) Disk drive B) Printer C) Scanner D) Monitor

Operating-System Structure:

1. What is the purpose of the kernel? A) To provide a user interface B) To manage system resources C) To execute applications D) To provide security
2. Which of the following is not a layer in the operating system structure? A) Hardware B) Kernel C) System call interface D) Application
3. What is the difference between monolithic kernels and microkernels? A) Monolithic kernels are simpler and more efficient, while microkernels are more complex and slower. B) Monolithic kernels are larger and more complex, while microkernels are smaller and simpler. C) Monolithic kernels are more secure, while microkernels are less secure. D) Monolithic kernels are easier to maintain, while microkernels are harder to maintain.

Operating-System Operations:

1. What is the purpose of system calls? A) To provide a user interface B) To manage system resources C) To execute applications D) To provide security
2. Which of the following is not a common system call? A) open() B) read() C) write() D) execute()
3. What is the difference between a user-level process and a kernel-level process? A) User-level processes run in user mode, while kernel-level processes run in kernel mode. B) User-level processes have more privileges than kernel-level processes. C) User-level processes have direct access to system resources, while kernel-level processes do not. D) User-level processes are executed by the CPU, while kernel-level processes are executed by the

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What Operating Systems Do:

1. What is the primary function of an operating system? B) To manage system resources
2. Which of the following is not a type of operating system? D) Object-oriented

3. Which of the following is not a characteristic of a real-time operating system? B) High throughput

Computer-System Organization:

1. What is the main purpose of the CPU? B) To execute instructions
2. What is the purpose of the memory hierarchy? A) To improve system performance
3. Which of the following is not a component of the I/O subsystem? C) System call

Computer-System Architecture:

1. What is the difference between von Neumann architecture and Harvard architecture? B) Von Neumann architecture has a single memory space for both data and instructions, while Harvard architecture has separate memory spaces for each.
2. What is the purpose of the system bus? D) To connect the CPU, memory, and I/O devices
3. Which of the following is not a type of I/O device? D) Monitor

Operating-System Structure:

1. What is the purpose of the kernel? B) To manage system resources
2. Which of the following is not a layer in the operating system structure? A) Hardware
3. What is the difference between monolithic kernels and microkernels? B) Monolithic kernels are larger and more complex, while microkernels are smaller and simpler.

Operating-System Operations:

1. What is the purpose of system calls? B) To manage system resources
2. Which of the following is not a common system call? D) execute()
3. What is the difference between a user-level process and a kernel-level process? A) User-level processes run in user mode, while kernel-level processes run in kernel mode.

Process Management:

1. What is a process? C) An executing program
2. What is the purpose of the process scheduler? B) To decide which process to run next
3. What is the difference between a process and a thread? B) A process is an executing program, while a thread is a subtask of a process.

Memory Management:

1. What is virtual memory? B) A technique that allows the execution of programs that are larger than physical memory
2. What is the purpose of the memory manager? C) To manage the allocation and deallocation of memory
3. What is the difference between paging and segmentation? A) Paging divides memory into fixed-size blocks, while segmentation divides memory into variable-size blocks.

Storage Management:

1. What is a file system? B) A method for storing and organizing files on disk
2. What is the purpose of the file manager? C) To manage the creation, deletion, and manipulation of files
3. What is the difference between a hard link and a soft link? A) A hard link is a copy of a file, while a soft link is a reference to a file.

Protection and Security:

1. What is access control? C) A mechanism for restricting access to system resources
2. What is authentication? A) The process of verifying the identity of a user or system
3. What is the difference between encryption and decryption? B) Encryption is the process of converting plaintext to ciphertext, while decryption is the process of converting ciphertext to plaintext.

Kernel Data Structures:

1. What is a process control block? B) A data structure that contains information about a process
2. What is a file control block? C) A data structure that contains information about a file
3. What is the difference between a semaphore and a mutex? B) A semaphore is a signaling mechanism that can be used