

Exam Answers

Question 1: What is an Operating System (OS)? Explain its primary functions.

Answer:

Question 2: Describe the difference between a process and a thread. How does thread management improve system performance?

Answer:

Question 3: What is virtual memory? How does it work, and what are its advantages and disadvantages?

Answer:

Question 4: Explain the concept of deadlock in operating systems. What are the necessary conditions for a deadlock to occur, and how can deadlocks be prevented or resolved?

Answer:

Question 5: What are the various scheduling algorithms used in operating systems? Compare and contrast between at least two scheduling algorithms.

Answer:

Question 6: Define and explain the concept of file systems. What are the different types of file systems commonly used, and how do they manage data on storage devices?

Answer:

Question 7: What is a system call? Describe the process of a system call and its significance in the interaction between user applications and the OS.

Answer:

Question 8: Discuss the differences between a monolithic kernel and a microkernel. What are the advantages and disadvantages of each approach?

Answer:

Question 9: What is a semaphore in the context of operating systems? Explain how semaphores are used to manage concurrency and synchronization among processes.

Answer:

Question 10: Describe the concept of paging in memory management. How does paging address the issues of fragmentation, and what are the implications of page replacement algorithms on system performance?

Answer: inception

Question 11: The operating system is a type of system software.

Answer: True

Question 12: A process is an instance of a program in execution.

Answer: True

Question 13: The main purpose of an operating system is to manage the _ of a computer.

Answer: hardware

Question 14: In a multi-user operating system, multiple users can _ the system at the same time.

Answer: use inception

Question 15: Which of the following is not an operating system?

Answer:

Question 16: Which scheduling algorithm is also known as the 'first come, first served'?

Answer:

Question 17: What is the primary function of an operating system?

Answer: D. All of the above