System call

A system call is a programming interface provided by an operating system that allows applications to request services from the kernel. The system call provides a way for an application to interact with the underlying hardware and resources of the computer system.

There are several types of system calls that are provided by an operating system, including:

1. Process Control System Calls: These system calls are used to create, manage, and terminate processes in the system. Examples of process control system calls include fork(), exec(), wait(), and exit().

2. File Management System Calls: These system calls are used to manage files and directories on the file system. Examples of file management system calls include open(), close(), read(), write(), mkdir(), and rmdir().

3. Device Management System Calls: These system calls are used to manage input/output devices in the system. Examples of device management system calls include ioctl(), read(), and write().

4. Information Maintenance System Calls: These system calls are used to get or set system and process information. Examples of information maintenance system calls include getpid(), getuid(), getgid(), and time().

5. Interprocess Communication System Calls: These system calls are used to enable communication and synchronization between processes in the system. Examples of interprocess communication system calls include pipe(), shmget(), and semget().

6. Network System Calls: These system calls are used to manage network connections and data transfer over a network. Examples of network system calls include socket(), bind(), and listen().

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61. What is Process Scheduling, CPU Scheduling, Disk Scheduling? Explain Short, Medium and Long term Scheduler?
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63. Explain the following in brief Contiguous and Linked list allocation for implementing file system?
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65. Define process and thread. What is PCB ? Explain its various entries with their usefulness ?
66. Discuss advantages and disadvantages of the Buffer cache ?
67. Explain different types of OS with examples of each ?
68. What is an Operating System? Write down its desirable characteristics ?
69. Define a deadlock ? Write down the conditions responsible for deadlock? How can we recover from deadlock ?
70. What are the various services provided by Operating system ?
71. What do you mean by PCB? Where is it used? What are its contents? Explain.
72. What is Binary and Counting semaphores ?

73. What is File? What are the different File attribute and operations?
74. Describe necessary conditions for deadlocks situation to arise.
75. What are points to be consider in file system design? Explain linked list allocation in detail?
76. Write a Semaphore solution for dining Philosopher's problem?
77. Consider the following page reference string:1,2,3,4,5,3,4,1,2,7,8,7,8,9,7,8,9,5,4,5. How many page faults would occur for the following replacement algorithm, assuming four frames:a) FIFOb) LRU
78. Explain CPU schedulers in operating system?
79. Write the different state of a process with the help of Process state deagram?
80. What is Mutex in operating system?
81. Explain Network operating system?
82. What do you mean by paging in operating system ?