

Section - 4

Question 1. Write about monolithic kernel, layered, and micro-kernel structure of operating system.

Answer. 1. Monolithic Kernel :- A monolithic kernel is an operating system architecture where the entire operating system is working in kernel space. The monolithic model differs from the other operating system architectures in that it alone defines a high level virtual interface over computer hardware. A set of primitive or system call implement all operating system services such as process management, concurrency and memory management service drivers can be added to the kernel as modules.

2. Layered operating System :- The operating system is split into various layers in the layered operating system and each of the layers have different functionalities. The type of operating system was created as an improvement over the early monolithic system.

- There are six layers in the layered operation system.
- Hardware - This layers interacts with the system hardware with all the peripheral device used as printer mouse, keyboard, scanner etc.

CPU Scheduling :-

This layer deals with scheduling the process of the CPU. There are many scheduling queues that are used to handle process. When the process enters the system they are put into the job queue.

Process Management :-

This layer is responsible for managing the process is assigning the process or to process at time. This is known as process scheduling.