

Section 2

Q. What is operating system? Describe resource request Algorithm and explain inter process communication

Answer An operating system acts as an intermediary between the users of a computer and computer hardware.

An operating system is software that manages the computer hardware.

- (i) Booting :- Uses diagnostic routines to test system for equipment failure.
- (ii) Formatting :- Format (initialize) diskettes so they can store data program
- (iii) Managing task :- May be able to perform multi-tasking, multi-programming, time-sharing or multi-processing.

Resource request algorithm :- This describes the behaviour of the system when a process makes a resource request in the form of a request matrix.

- 1.) If number of requested instances of each resources is less than the need (which has declared previously by the process)
2. If number of requested instance of each resource type is less than the available resource of each type.
3. Now, assume that the resource have been allocated.

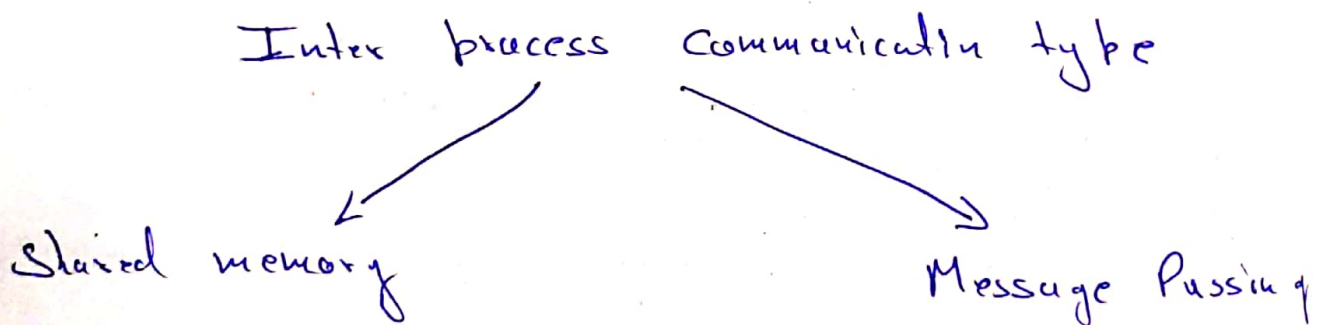
According to

$$\text{Available} = \text{Available} - \text{Request}_i$$

$$\text{Allocation}(i) = \text{Allocation}(i) + \text{Request}(i)$$

$$\text{Need}(i) = \text{Need}(i) - \text{Request}(i)$$

Inter - process - Communication.



In computer IPC refered specially to the mechanism on machine provides to allow the process to manage shared data.