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8th Batch

CSE

course code: CSE231

course: Operating system concept

Ans: the: Q! No: 01

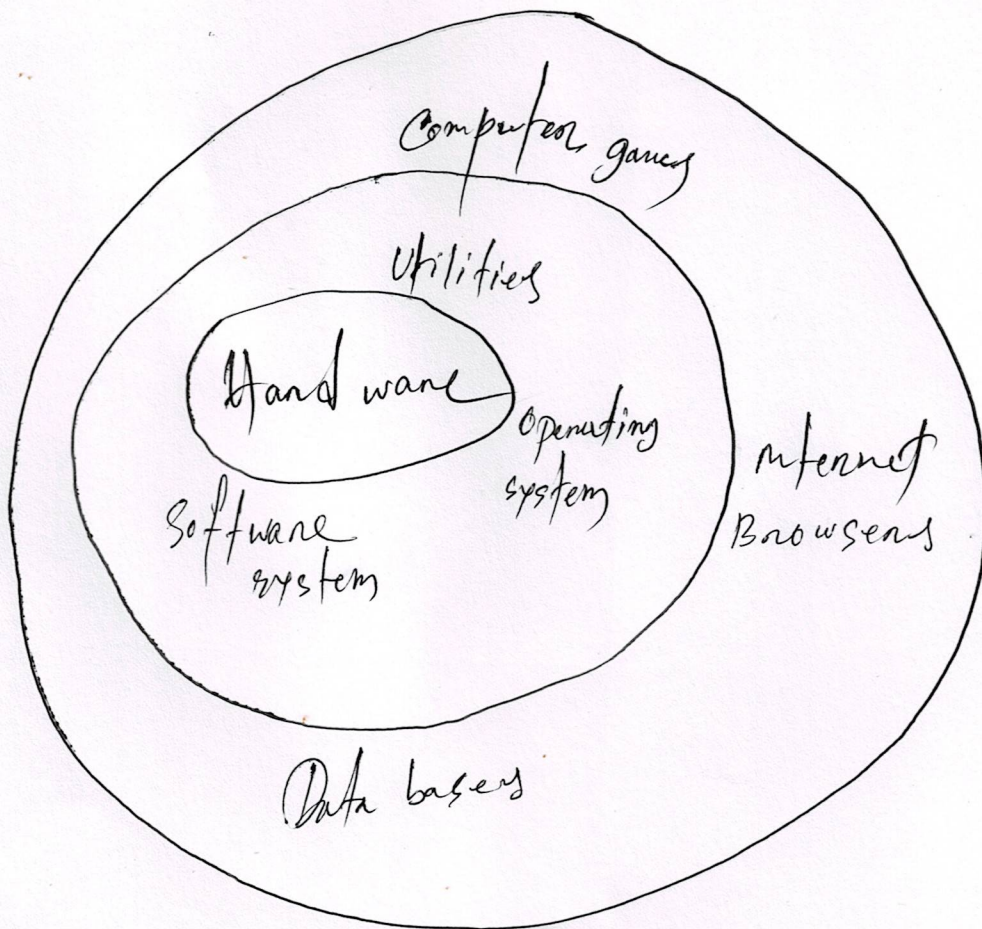
Basic concept operating systems: An operating system with the Allocation of resources & service, such as memory, processors, devices & information. The operating system correspondingly includes programs to manage these resources, such as a traffic controller, a scheduler, a memory management module, I/O programs for file system.

An operating system service as a link between a computer's software & hardware. Typically example of operating system are windows, linux, mac, os & unix. An operating system is composed of five layers, the kernel, input/output, memory management, file management system & user interface.

② Operating system Definition & Function:

→ In the computer system (comprises of hardware & software), hardware can only understand machine code (in the form of 0 & 1) which doesn't make any sense to a main user.

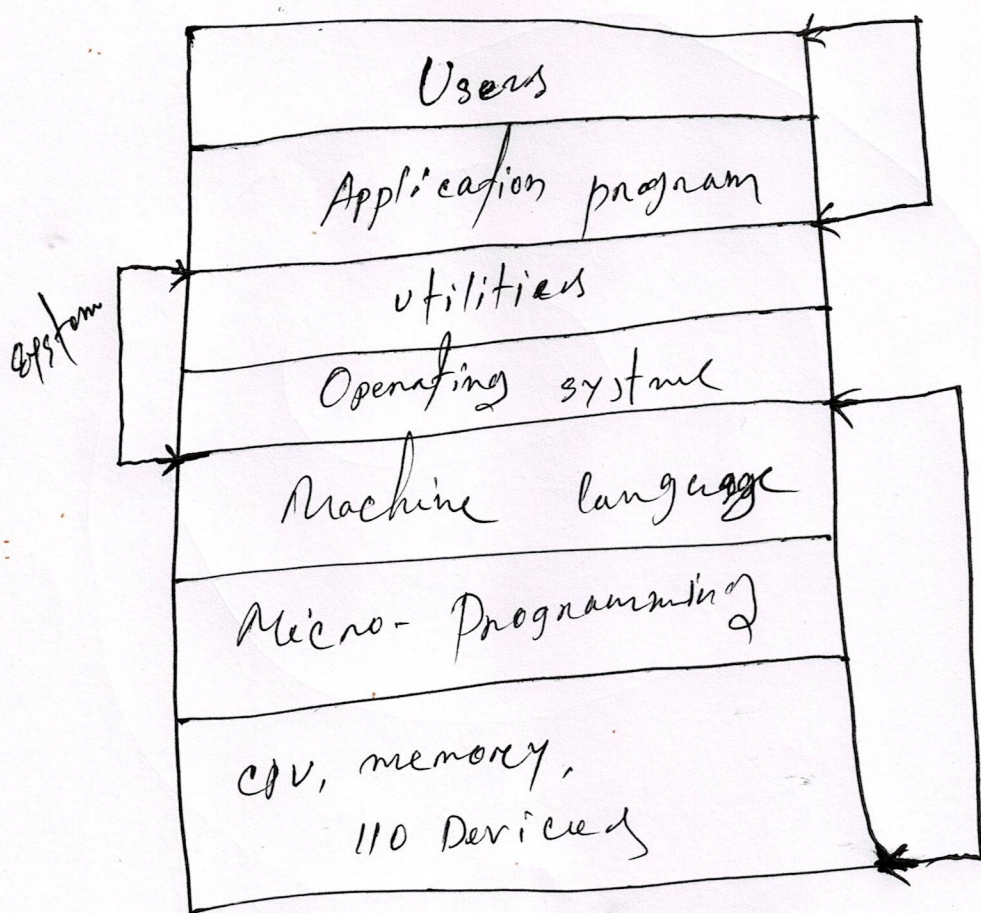
We need a system which can act as an intermediary & manage all the processes & resources present in the system.



③

An operating system can be defined as an interface between user & hardware. It is responsible for the execution of all process, resource allocation, CPU management, file management & many others tasks.

The purpose of an operating system is to provide an environment in which a user can execute program in convenient & efficient manner.



There are various, advantage & Disadvantage of the mult. processing Operating system. Some of the advantage & disadvantage are as follows:-

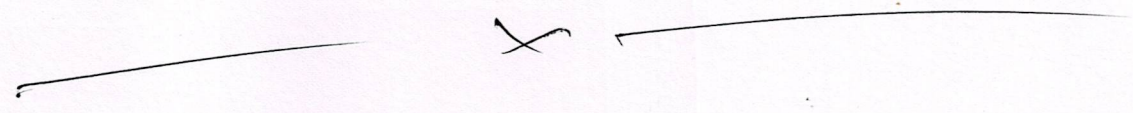
Advantages:

- It provides less response time
- It may help to run various jobs in a single application simultaneously.
- It helps to optimize the total job throughput of the Computer.
- Shorter times jobs are done quickly in comparison to long time jobs.
- It may help to improve turnaround time for shorter time tasks.
- It helps improving CPU utilization & hence the idea.

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Disadvantage Operating system:

- It's highly complicated & sophisticated.
- The CPU scheduling is required.
- Memory management is needed in the Operating system because all types of tasks are stored in the main memory.
- The harder task is to handle all process & task.
- If it has a large number of jobs, then long term jobs will require a long wait.



Q. Features of Operating system: (05)

Allows disk access & file system device drive networking security. Program execution, memory management, virtual memory multitasking.

⇒ Here's list important features of OS:-

→ Protected & supervisor mode.

→ Allows disk access & file system Device Drives networking security.

→ Program execution.

→ Memory management virtual memory Multitasking.

→ Handling I/O operations.

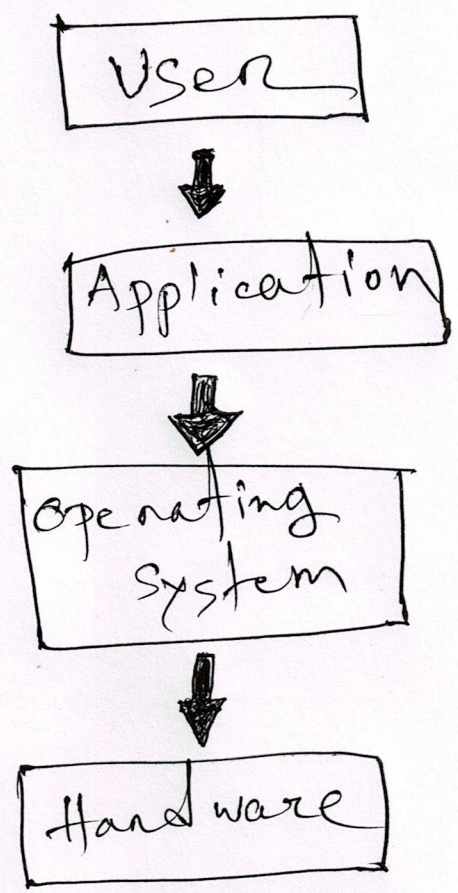
→ Manipulation of the file system.

→ Error detection & handling.

→ Resource allocation.

→ Information & resource protection.

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A Feature Operating system.

Objects Operating system: The Operating system acts as a bridge between the user of a computer system & the computer hardware. All of the Applications required for your programs to utilize the computer hardware are located on top of the Operating system.

→ The following are the main objects of Operating system.

- (i) Efficiency.
- (ii) Hardware abstraction.
- (iii) Convenience.
- (iv) System resource management.

Efficiency

Hardware Abstraction

Objects of OS

Convenience

System resource management

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Efficiency : The Operating system increases the Production efficiency. This is because the system configuration takes less time. By default the operating system handle system takes such as allocating resource to process & resolving conflicts between different program & users.

Hardware abstraction :
The Operating system performs a good job of cancelling the computers intricate details. The user can fully utilize the computer hardware without having to cope with the accompanying difficulty.

Convenience: In the absence of an operating system user would have to deal with the hardware directly without access to the pre-configured utility packages.

System resource management: The operating system serves as a mediator. It serves a management role in the computer system by ensuring operation & consuming.

So, far we have discussed the objects of the Operating system let go over the function of operating system.