SEC.-1

(1) what do you mean by caching, spooling and error handling. Explain in detail ? Explain FCFS, SCAN & CSCAN Scheduling with example.

Caching :-

1) A cache is a region of fast memory that holds copies of data. Access to the cache copy is more efficient than access to the original.

2) For instance, the instruction of the currently running process are stored on disk, cache in physical memory and copied again in the CPU's secondary and primary caches.

SPooling :-

1) A spool is a buffer that holds output for a device, such as a printer, that cannot accept interleaved data streams.

2) Although a printer can serve only one job at a time, several application may wish to print their output concurrently without having their output mixed together.

3) The operating system solve this problem by intercepting all output to the printer.

4) Each application's output is spooled to a seperate disk file.

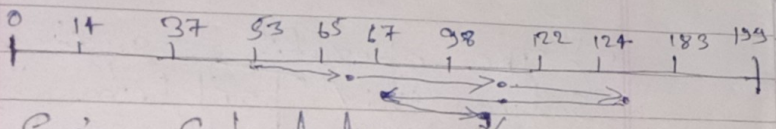
Error handling :-

1) An OS that uses protection memory can guard against many kind of hardware and application errors so that a complete system failure is not the usual result.

2) Operating System can often compensate effectively for transient failures.

FCFS Scheduling :-

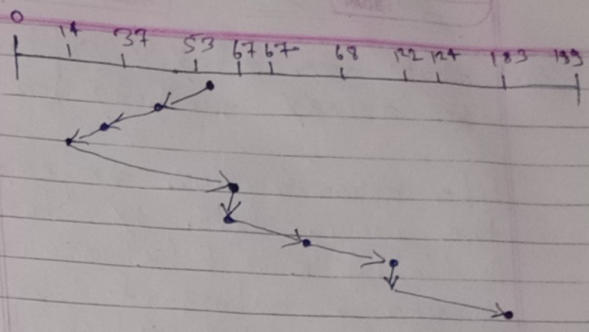
1) The simplest form of disk scheduling is the First Come First Served algorithm.



Scan Scheduling :-

1) In the Scan algorithm, the disk arm start at one end of the disk and moves towards the other end. Servicing request requests as it reaches each cylinder, until it gets to the other end of the disk.

2) At the other end, the direction of head movement is reversed, and servicing continues.



C-Scan Scheduling :-

1) Circular SCAN (C Scan) Scheduling is a variant of Scan designed to provide a more uniform wait time.

2) Like Scan CScan mov the head from one end of the disk to th other, servicing reques along the way.