

1. 12.2 Explain why SSDs often use an FCFS disk scheduling algorithm.

This is because SSDs do not have moving parts and thus the performance is **insensitive to issues** such as **seek time and rotational latency**. Therefore, a simple FCFS policy will sufficient to support the disk access.

2. 12.10 Compare the throughput achieved by a RAID level 5 organization with that achieved by a RAID level 1 organization for the following:

1. Read operations on single blocks

The overall throughput will depend on the **number of disks** in the RAID system.

And thus, a RAID Level 5 comprising of a **parity block for every set of four blocks** spread over five disks can support **four to five operations** at the same. On the contrary, a RAID Level 1 composed of **two disks** can support **only two simultaneous operations**.

Moreover, RAID Level 1 possesses greater flexibility in as to which copy of a block could be accessed and that could provide performance benefits by taking into account position of disk head.

2. Read operations on **multiple contiguous blocks**

Obviously, a RAID Level 5 organization can perform **greater bandwidth for accesses to multiple** contiguous blocks because the adjacent(contiguous) blocks could be accessed at the same time. Besides, the RAID level cannot achieve such bandwidth improvements