SARDAR PATEL COLLEGE OF ENGINEERING, BAKROL, ANAND

Subject Name : Operating System & Virtualization **Semester: 4th**

Subject Code: 3141601 **Branch: I.T.**

Assignment - 5

Given Date: 18/04/2020 ***Last Date: 25/04/2020**

1. Explain block diagram of DMA.
2. Explain RAID with all levels.
3. Explain various types of i/o buffering.
4. Consider a disk queue with requests for I/O to blocks on cylinders 98, 183, 41, 122, 14, 124, 65, 67. The head is initially at cylinder number 53. The cylinders are numbered from 0 to 199. Make the disk scheduling with FCFS, SSTF, SCAN, C-SCAN, LOOK, C-LOOK algorithm and find the seek time for all.
5. Consider the following disk request sequence for a disk with 100 tracks 45, 21, 67, 90, 4, 50, 89, 52, 61, 87, 25 . Head pointer starting at 50 and moving in left direction. Find the number of head movements in cylinders using FCFS, SSTF, SCAN, C-SCAN, LOOK,C-LOOK algorithm.
6. Consider a reference string: 4, 7, 6, 1, 7, 6, 1, 2, 7, 2. the number of frames in the memory is 3. Find out the number of page faults respective to: Optimal Page Replacement Algorithm, FIFO Page Replacement Algorithm and LRU Page Replacement Algorithm.
7. The reference String is given as 0 1 5 3 0 1 4 0 1 5 3 4 . number of frames in memory are 3. Find the number of page fault to analyze belady's anamoly.

***Note : Consider the last date as final deadline to submit the assignment. After the last date assignment will not be accepted in any case.**