1. Describe the FCFS disk scheduling algorithm using the following data. The disk head is initially at position-cylinder 53. The cylinder sequence of requests is

   98, 183, 37, 122,14, 124, 65. 67. Find the total head movement.

2. Describe the SSTF disk scheduling algorithm using the following data. The disk head is initially at position-cylinder 53.the cylinder sequence of requests is

   98, 183, 37, 122,14, 124, 65. 67. Find the total head movement.

3. Describe the SCAN disk scheduling algorithm using the following data. The disk head is initially at position-cylinder 53. The cylinder sequence of requests is

   98, 183, 37, 122,14, 124, 65. 67. Find the total head movement.

4. Describe the C-SCAN disk scheduling algorithm using the following data. The disk head is initially at position-cylinder 53.the cylinder sequence of requests is

   98, 183, 37, 122,14, 124, 65. 67. Find the total head movement.

5. Describe the LOOK disk scheduling algorithm using the following data. The disk head is initially at position-cylinder 53.the cylinder sequence of requests is

   98, 183, 37, 122,14, 124, 65. 67. Find the total head movement.

6. A process references 5 pages A, B, C, D, E in the following order

   A, B, C, D, A, E, B, C, E, D

Assuming that the replacement algorithm is LRU and FIFO, find out the number of page faults during the sequence of references, starting with an empty main memory with 3 frames.

7. Consider the reference string 5 0 1 8 0 3 0 4 8 3 0 3 8 1 8 0 1 5 0 1. Use FIFO page replacement algorithm to calculate the number of hits and misses. (Page Frame: 3)

8. Consider the reference string 5 0 1 8 0 3 0 4 8 3 0 3 8 1 8 0 1 5 0 1. Use optimal page replacement algorithm to calculate the number of hits and misses. (Page Frame: 3)
9. Consider the reference string 5 0 1 8 0 3 0 4 8 3 0 3 8 1 8 0 1 5 0 1. Use LRU page replacement algorithm to calculate the number of hits and misses. (Page Frame: 3)
10. Consider the reference string A C D A B C D A D C B A C A B. Use FIFO page replacement algorithm to calculate the number of hits and misses. (Page Frame: 4)
11. Given five memory partitions of 100Kb, 500Kb, 200Kb, 300Kb, 600Kb (in order), how would the first-fit, best-fit, and worst-fit algorithms place processes of 212 Kb, 417 Kb, 112 Kb, and 426 Kb (in order)? Which algorithm makes the most efficient use of memory?
12. Suppose that a disk drive has 5000 cylinders, numbered 0 to 4999. the drive currently services a request at cylinder 143, and the previous request was at cylinder 125. the queue of pending request in FIFO order is 86,1470,913,1774,948,1509,1022,1750,130. Starting from the current position, what is the total distance (in cylinders) that the disk arm moves to satisfy all pending requests, for each of the following algorithms i) FCFS ii) SSTF iii) SCAN iv) LOOK

13. The queue of requests in FIFO is 86,147,91,177,94,150,102,175,130What is the total head movement needed to satisfy the requests for the following Scheduling algorithms FCFS, LOOK, C-SCAN

14. A process references 5 pages A, B, C, D, E in the following order

A, B, C, D, A, E, B, C, E, D, A, C, D, B, A

Assuming that the replacement algorithm is LRU and FIFO, find out the number of page faults during the sequence of references, starting with an empty main memory with 3 frames.

15. A process references 5 pages A, B, C, D, E in the following order

A, B, C, D, A, E, B, C, E, D, A, C, D, B, A, C, D, A

Assuming that the replacement algorithm is LRU and OPTIMAL, find out the number of page faults during the sequence of references, starting with an empty main memory with 3 frames.

16. By using following reference string, find the page faults with the help of FIFO and LRU page replacement algorithms and compare the results.

7 0 1 2 0 3 0 4 2 3 0 3 2

17. By using following reference string, find the page faults with the help of LRU and Optimal page replacement algorithm and analyze the results.
    7 0 1 2 0 3 0 4 2 3 0 3 2 1 2

18. Explain Shortest-seek time first disk scheduling algorithm using I/O request queue of 100, 185, 40, 120, 20, 130, 65 and 85. Assume the read write head is at 50 with 200 cylinders.

19. Suppose that the head of moving head disk with 100 tracks numbered 0 to 99 is currently serving the request at track 43 and has just finished a request at track 125.If the queue request is kept in FIFO order,86, 47, 9, 17, 94, 50, 12, 75, 30What is the total head movement to satisfy these requests for i) FCFS II) SSTF disk scheduling algorithm.

20. Suppose that the head of moving head disk with 100 tracks numbered 0 to 99 is currently serving the request at track 43 and has just finished a request at track 125.If the queue request is kept in FIFO order,86, 47, 9, 17, 94, 50, 12, 75, 30What is the total head movement to satisfy these requests for i) LOOK II) C-LOOK disk scheduling algorithm.

21. Suppose that the head of moving head disk with 100 tracks numbered 0 to 99 is currently serving the request at track 43 and has just finished a request at track 125.If the queue request is kept in FIFO order,86, 47, 9, 17, 94, 50, 12, 75, 30What is the total head movement to satisfy these requests for i) FCFS II) SSTF disk scheduling algorithm.