Assignment No: 8

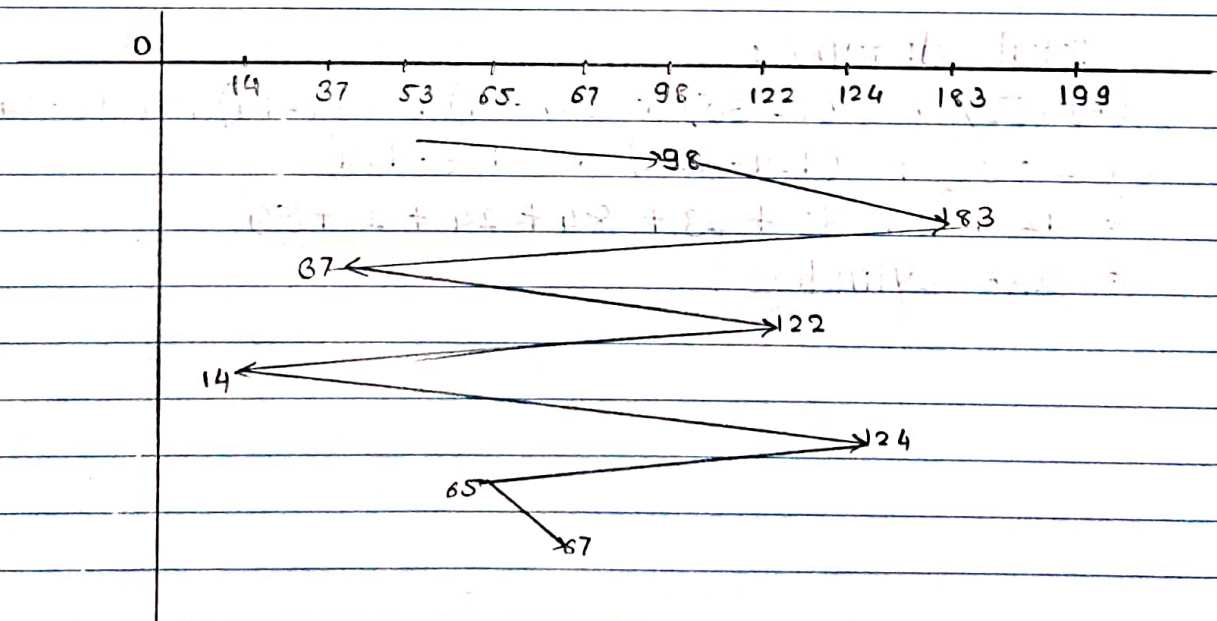Name : Prutha Sanjay Pawade
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- Disk Scheduling:

Consider the order of request for cylinder access of disk
is- 98, 183, 37, 122, 14, 124, 65, 67. and current position of
Read write head is : 53.
Find the total head movements to access the data on
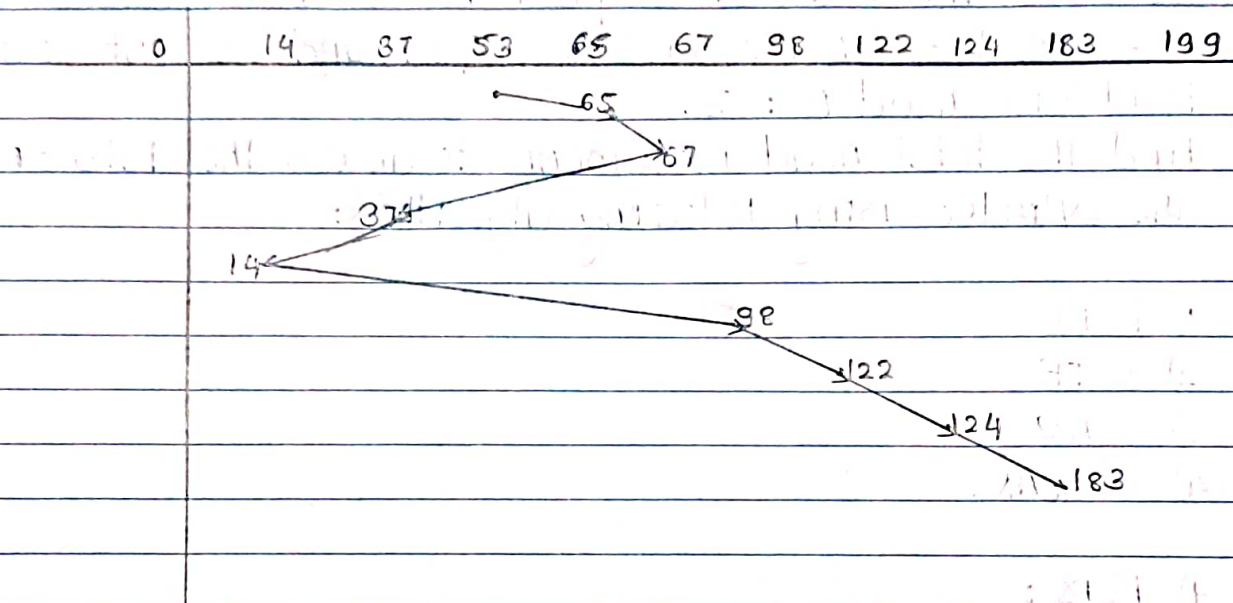the cylinder using following algorithms:

1) FCFS
2) SSTF
3) SCAN
4) C-SCAN.

1) FCFS :

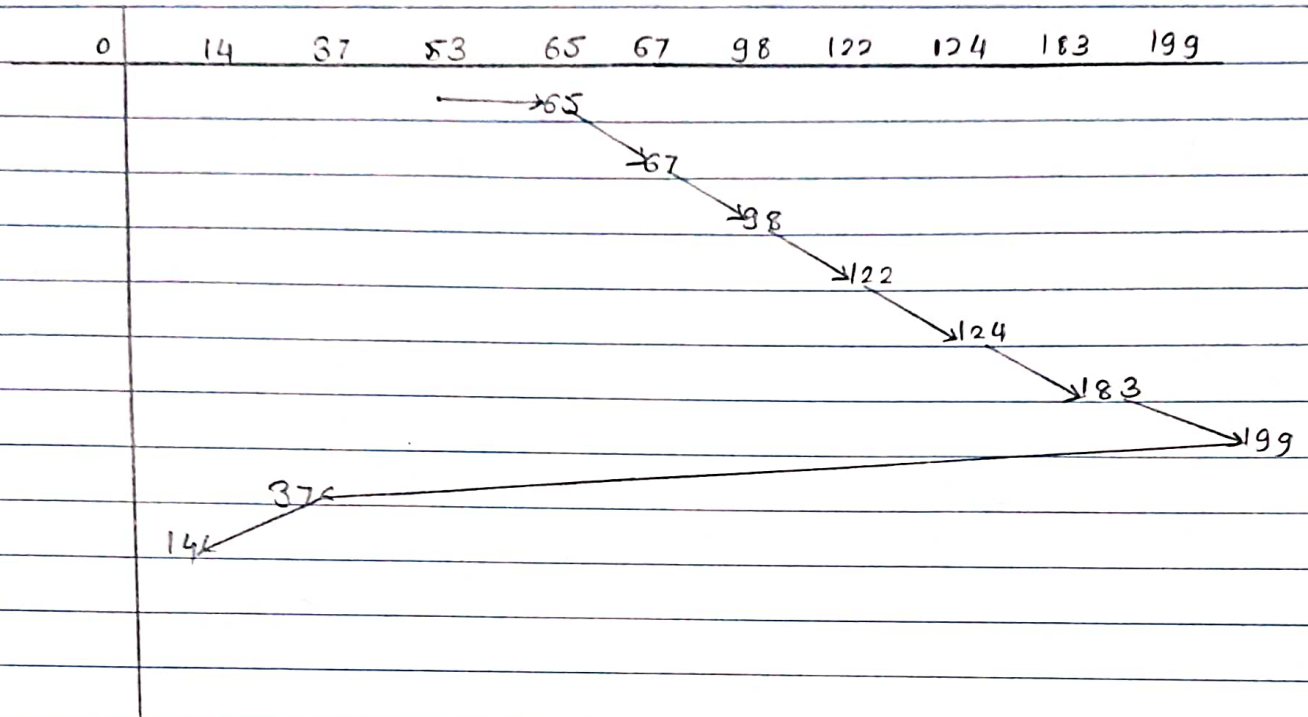Total distance: $(98-53) + (183+98) + (183-37) + (122-37) +$
$(122-14) + (124-14) + (124-65) + (67-65)$
$= 45 + 85 + 146 + 85 + 108 + 110 + 59 + 2$
$= 640$ cylinders.

2) SSTF:

Total distance:
$(65-53) + (67-65) + (67-37) + (37-14) + (98-14) +$
$(122-98) + (124-122) + (183-124)$
$= 12 + 2 + 30 + 23 + 84 + 24 + 2 + 59$
$= 236$ cylinders.

3) SCAN:

| 0 | 14 | 37 | 53 | 65 | 67 | 98 | 122 | 124 | 183 | 199 |

Total distance :

$(65-53) + (67-65) + (98-67) + (122-98) + (124-122) +$
$(183-124) + (199-183) + (199-37) + (37-14)$

$= 12 + 2 + 31 + 24 + 2 + 59 + 16 + 162 + 23$

$= 331$ cylinders.

4) C-SCAN:

Total distance :

$(65-53) + (67-65) + (98-67) + (122-98) + (124-122)$
$+ (183-124) + (199-183) + (14-0) + (37-14)$

$= 12 + 2 + 31 + 24 + 2 + 59 + 16 + 14 + 23$

$= 183$ cylinders.

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0      14    37    53    65    67    98    122   124   183   199

                        •
                          ➘65
                            ➘67
                                ➘98
                                    ➘122
                                        ➘124
                                            ➘183
                                                ➘199
    0 ◄
      ➘14
          ➘37
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