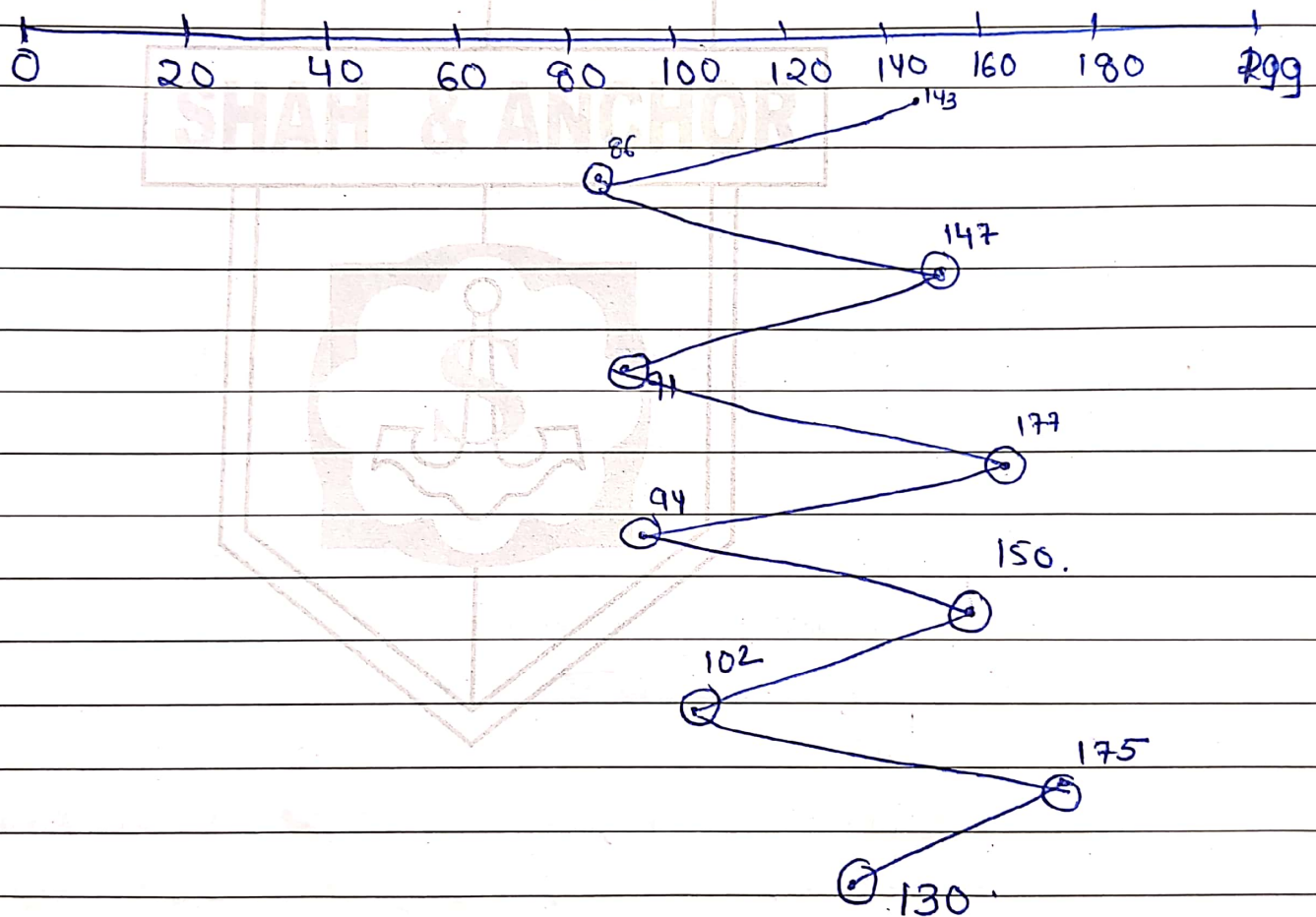


Module 5

Ques:-2 86, 147, 91, 177, 94, 150, 102, 175, 130,

Track 0 to 199 cy (Total 200 track)

current - 143
1) FCFS



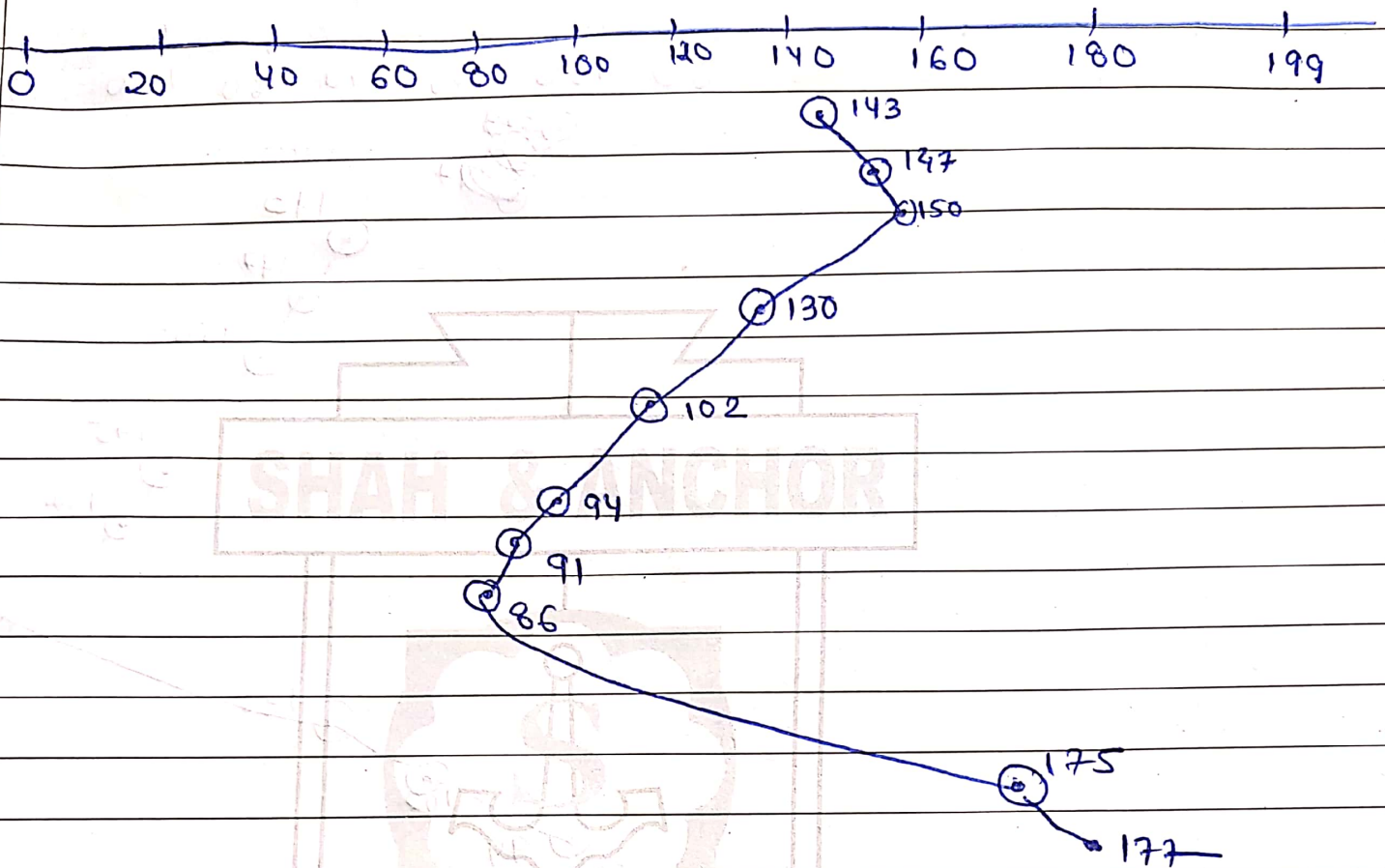
Total head Movement =

$$(143-86) + (147-86) + (147-91) + (177-91) + (177-94) + (150-94) + (150-102) + (175-102) + (175-130)$$

$$= 57 + 61 + 56 + 86 + 83 + 56 + 48 + 73 + 45$$

$$= 565$$

(2) SSTF



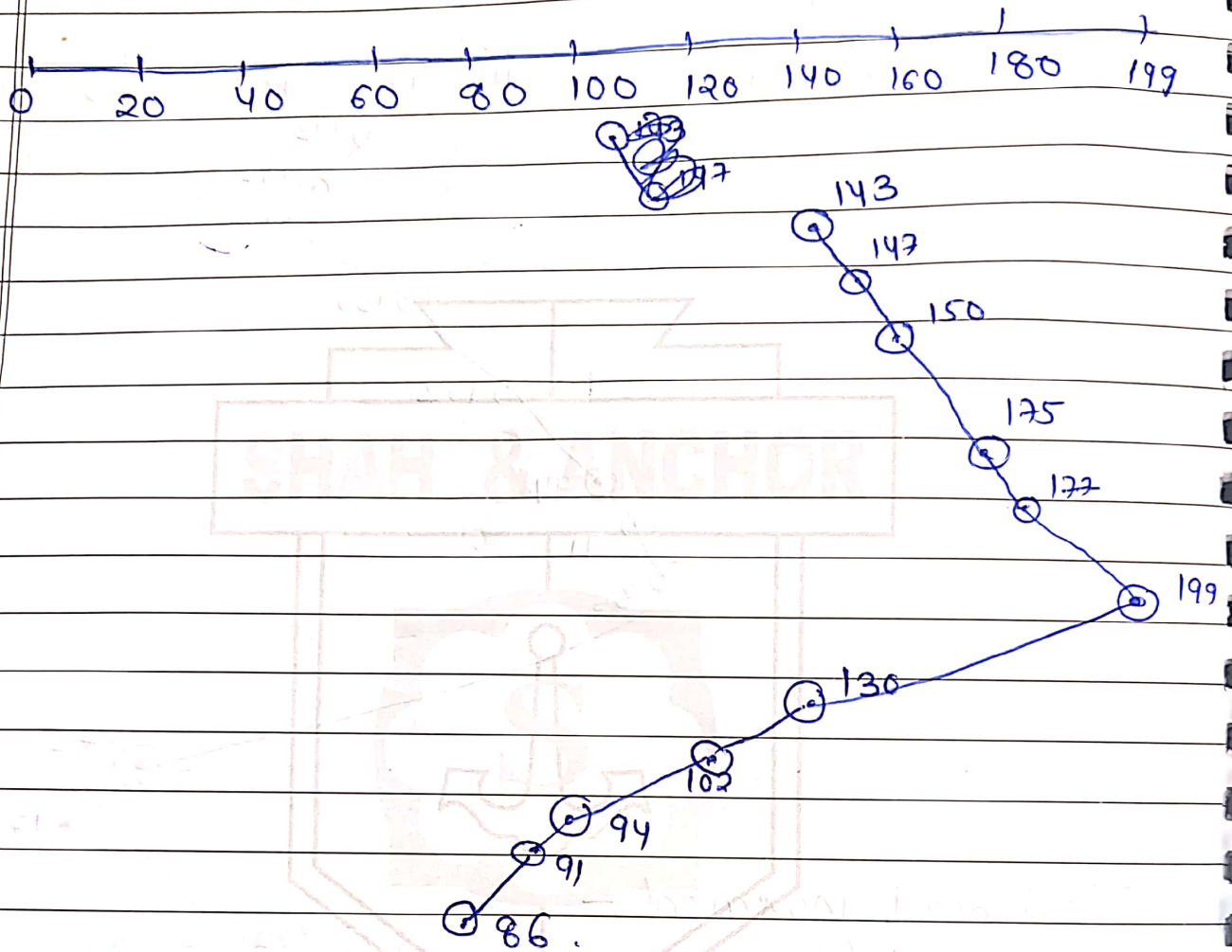
Total head movement -

$$(147-143) + (150-147) + (130-150) + (130-102) + (102-94) + (94-91) + (91-86) + (175-86) + (177-175)$$

$$4 + 3 + 20 + 28 + 8 + 3 + 5 + 89 + 2$$

$$= 162$$

③ Elevator Algorithm (Scan Algorithm)



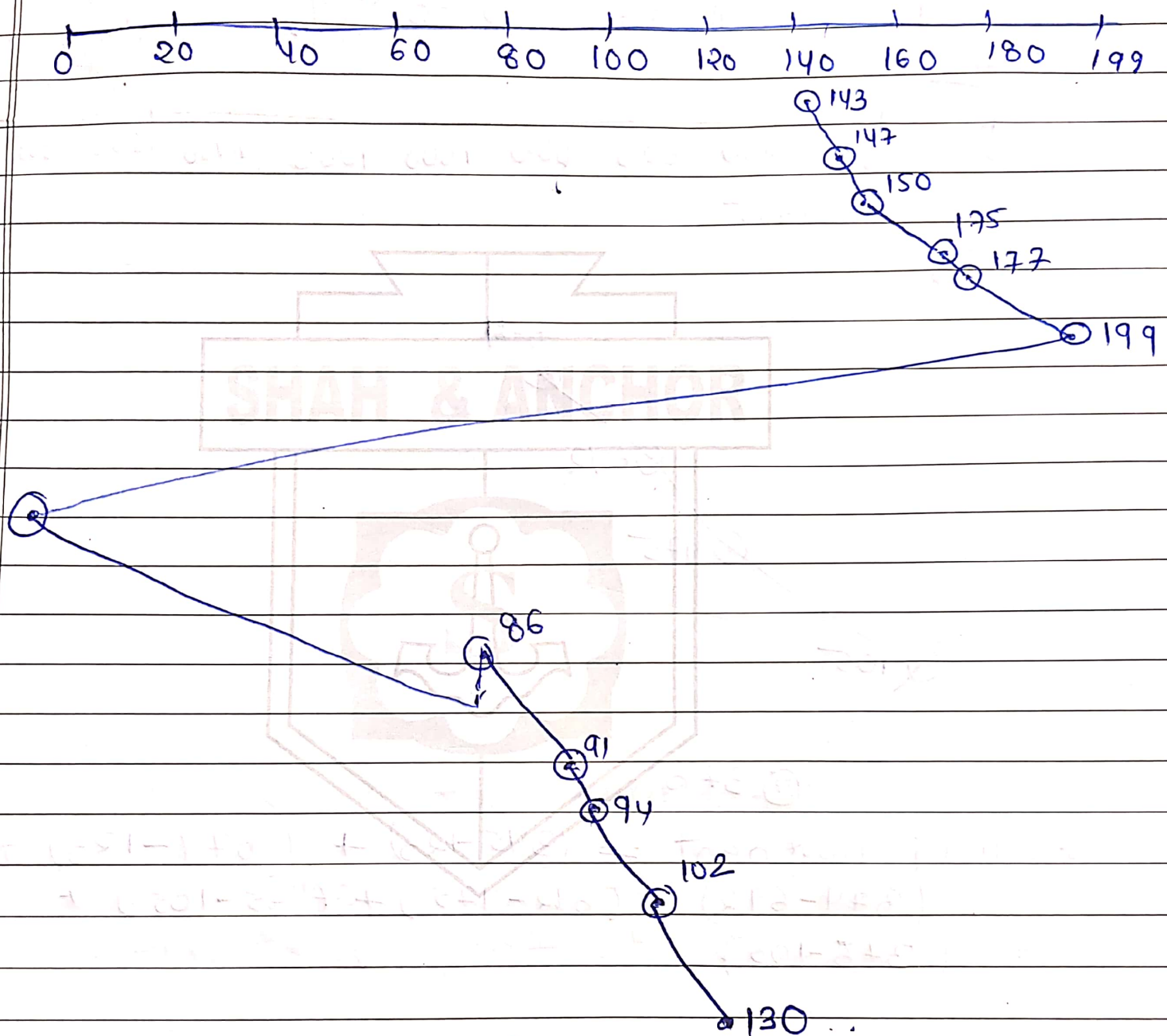
Total head Movement

$$(147 - 143) + (150 - 147) + (175 - 150) + (177 - 175) + (199 - 177) + (199 - 130) + (130 - 102) + (102 - 94) + (94 - 91) + (91 - 86)$$

$$= 4 + 3 + 25 + 2 + 22 + 69 + 28 + 8 + 3 + 5 =$$

$$= 169$$

4) C-scan (Circular Scan)



Total head Movement

$$\begin{aligned}
 & (143-147) + (150-147) + (175-150) + (177-175) + \\
 & (199-177) + (199-0) + (86-0) + (91-86) + \\
 & (94-91) + (102-94) + (130-102)
 \end{aligned}$$

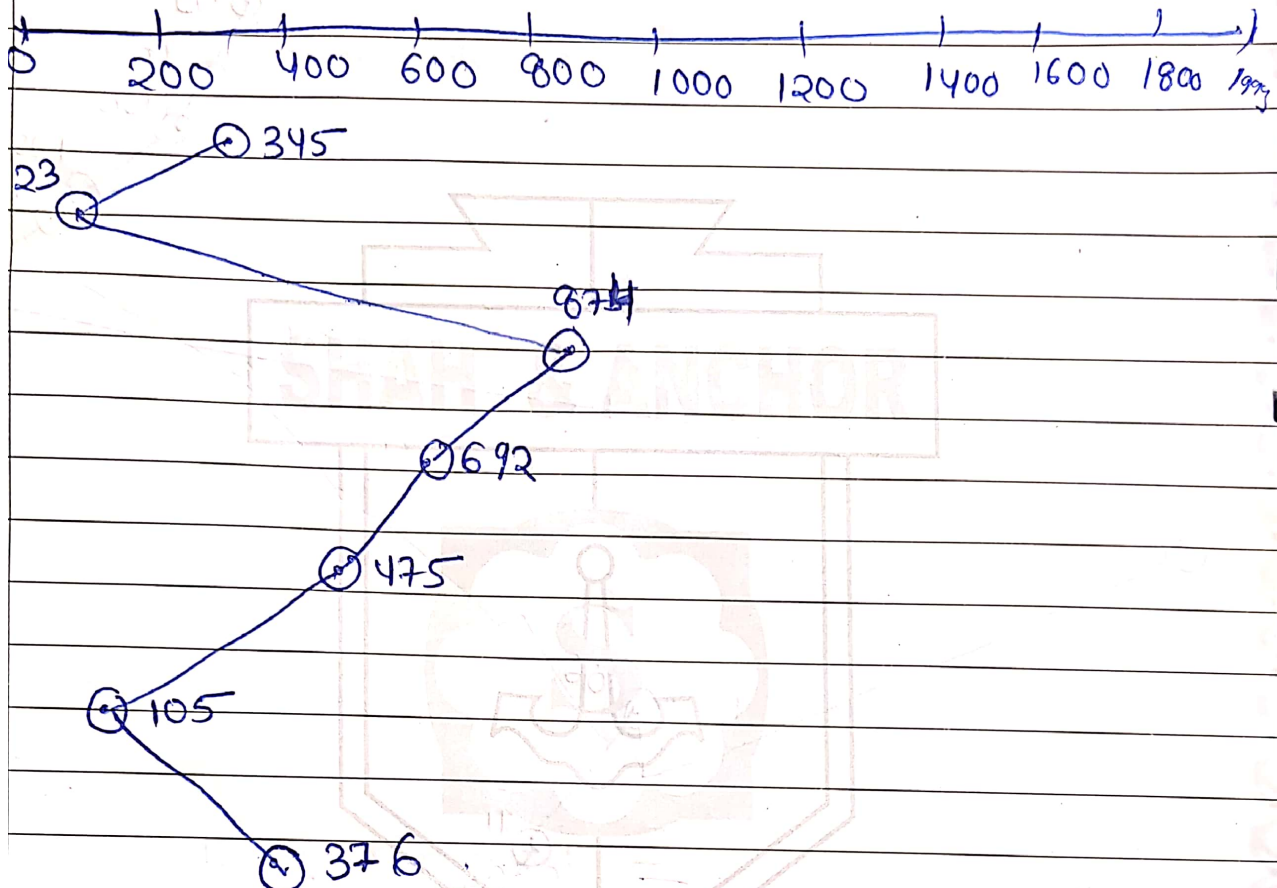
$$4 + 3 + 25 + 2 + 22 + 199 + 86 + 5 + 3 + 8 + 28$$

$$= 385$$

123, 874, 692, 475, 105, 376

1000 cylinders (0 to 999)

CFS

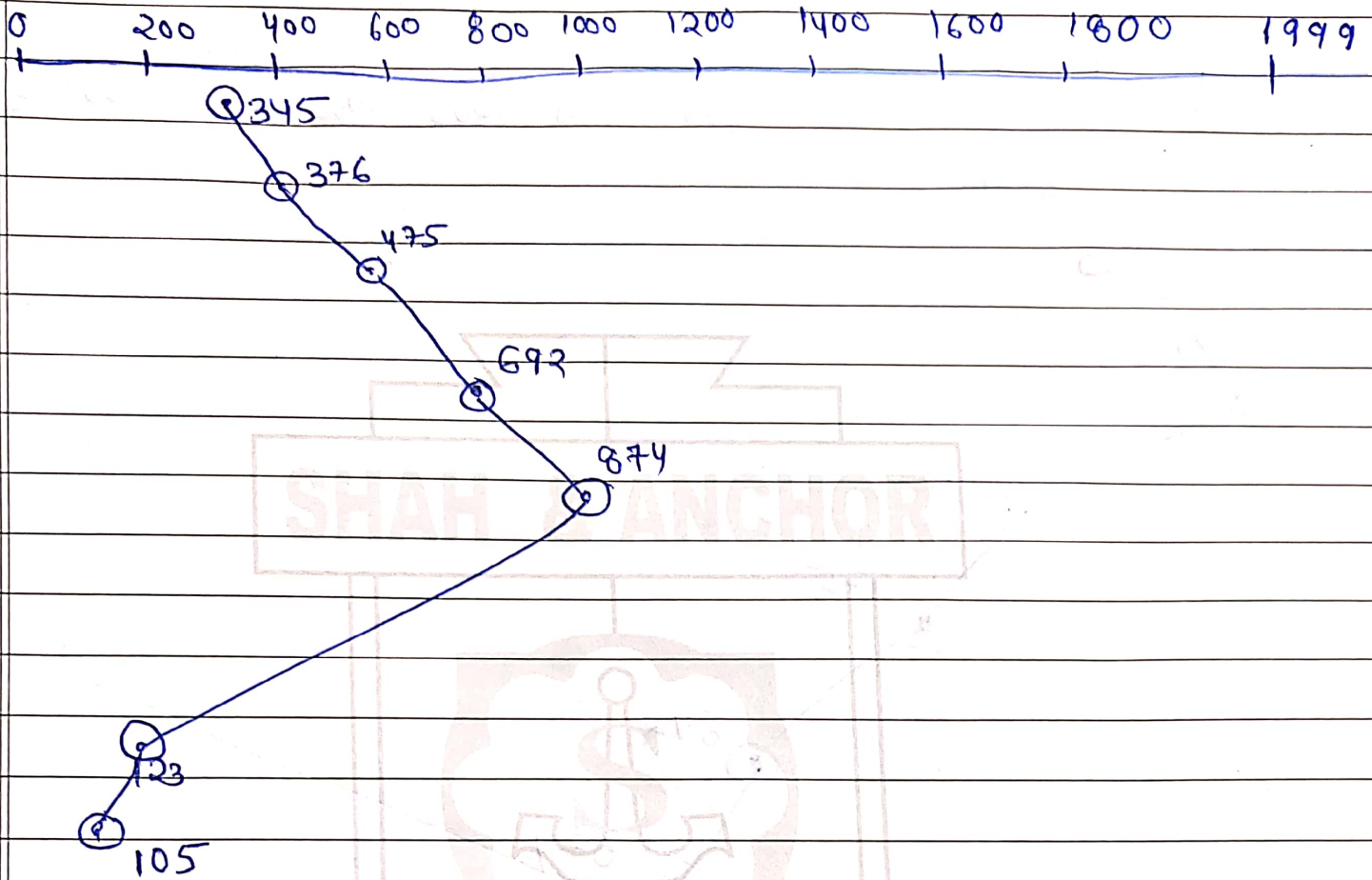


$$\text{Head Movement} = (345 - 123) + (874 - 123) + (874 - 692) + (692 - 475) + (475 - 105) + (376 - 105)$$

$$= 222 + 751 + 182 + 217 + 370 + 271$$

$$= 2013$$

27 SSTF

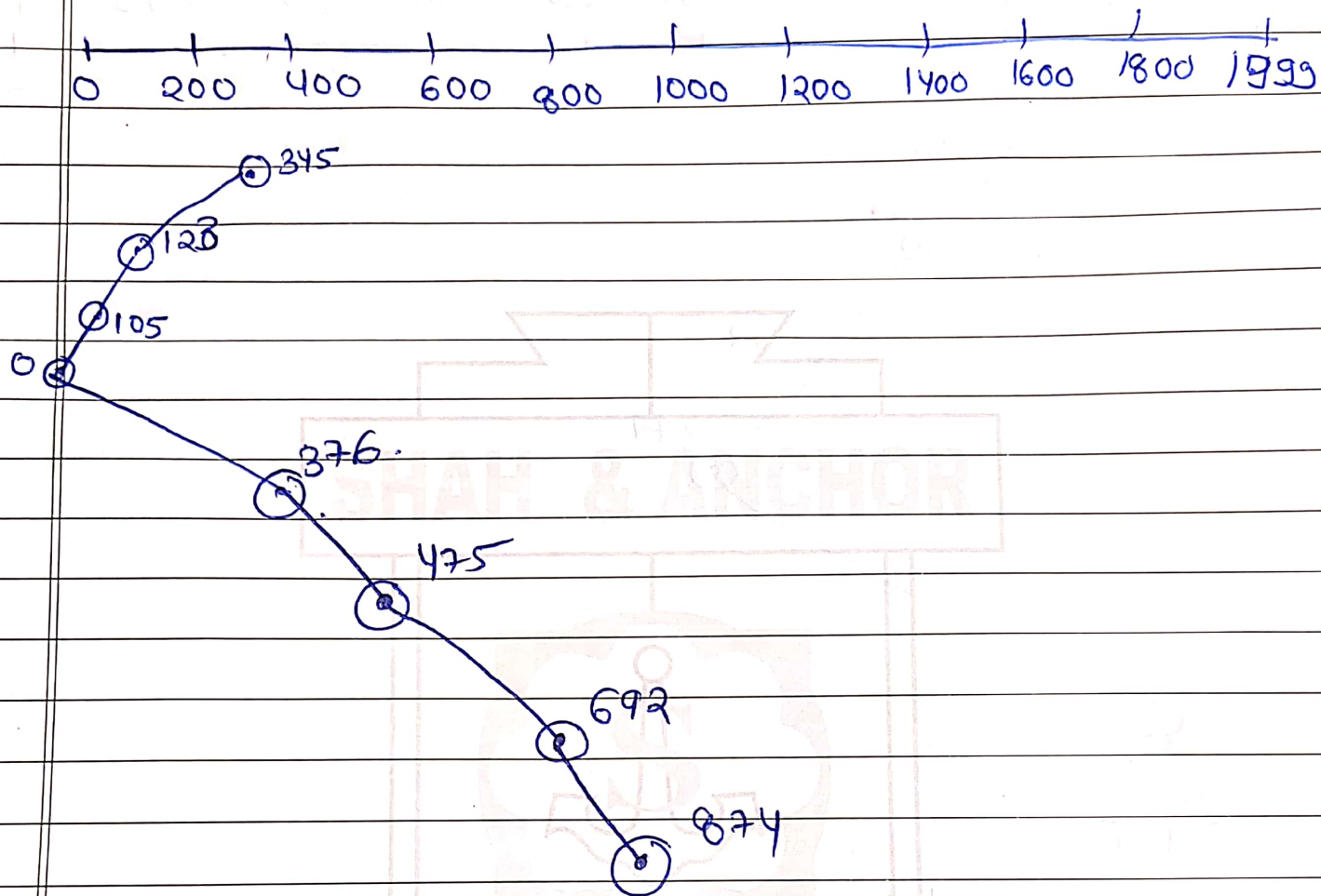


$$\text{Total head Movement} = (376 - 345) + (475 - 376) + (692 - 475) + (874 - 692) + (874 - 123) + (123 - 105)$$

$$= 31 + 99 + 217 + 182 + 751 + 18$$

$$= 1298$$

37 SCAN



Total head Movement =

$$(345 - 123) + (123 - 105) + (105 - 0) + (376 - 0) + (475 - 376) + (692 - 475) + (874 - 692)$$

$$= 1219$$