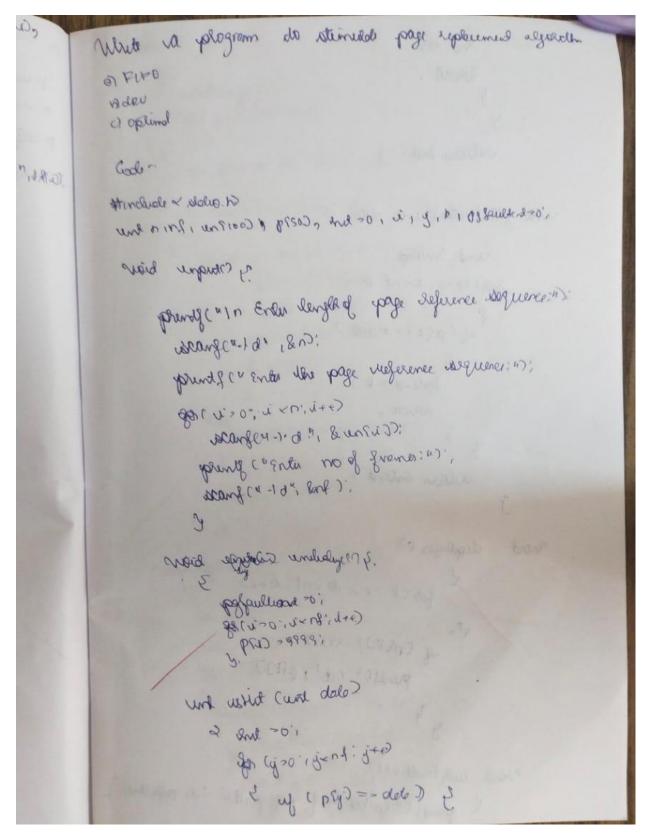
## OS LAB-8

Q) a) Write a C program to simulate page replacement algorithms a) FIFO b) LRU c) Optimal b) Write a C program to simulate disk scheduling algorithms a) FCFS b) SCAN c) C-SCAN CODE-



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## **OUTPUT-**

## Page replacement algorithm

```
Page Replacement Algorithms
1.Enter data
2.FIF0
3.Optimal
4.LRU
5.Exit
Enter your choice:1
Enter length of page reference sequence:13
Enter the page reference sequence:1 2 3 4 5 2 1 6 7 8 7 8 9
Enter no of frames:3
Page Replacement Algorithms
1.Enter data
2.FIF0
3.Optimal
4.LRU
5.Exit
Enter your choice:2
For 1 : 1
For 2 : 1 2
For 3 : 1 2 3
For 4: 234
For 5 : 3 4 5
For 2 : 4 5 2
For 1 : 5 2 1
For 6 : 2 1 6
For 7 : 1 6 7
```

```
For 7 :No page fault
For 8 :No page fault
For 9: 789
Total no of page faults:11
Page Replacement Algorithms
1.Enter data
2.FIFO
3.Optimal
4.LRU
5.Exit
Enter your choice:3
For 1 : 1
For 2 : 1 2
For 3 : 1 2 3
For 4: 124
For 5 : 1 2 5
For 2: No page fault
For 1 :No page fault
For 6: 625
For 7: 725
For 8: 785
For 7 : No page fault
For 8 : No page fault
For 9: 985
Total no of page faults:9
Page Replacement Algorithms
1.Enter data
2.FIF0
3.Optimal
4.LRU
5.Exit
```

```
Enter your choice:4

For 1 : 1

For 2 : 1 2

For 3 : 1 2 3

For 4 : 4 2 3

For 5 : 4 5 3

For 2 : 4 5 2

For 1 : 1 5 2

For 6 : 1 6 2

For 7 : 1 6 7

For 8 : 8 6 7

For 7 : No page fault!

For 9 : 8 9 7

Total no of page faults:11
```

## **Disk Scheduling**

```
Enter the number of Requests
4
Enter the Requests sequence
55 12 37 22
Enter initial head position
20
Total head moment of FCFS is 118
```

```
Enter the number of Requests

5
Enter the Requests sequence
55 12 37 22 40
Enter initial head position
20
Enter total disk size
100
Enter the head movement direction for high 1 and for low 0
1
Total head movement of SCAN is 166
Process returned 0 (0x0) execution time : 18.170 s
Press any key to continue.
```

```
Enter the number of Requests

5
Enter the Requests sequence
55 12 37 22 40
Enter initial head position
20
Enter total disk size
100
Enter the head movement direction for high 1 and for low 0
1
Total head movement CSCAN is 190
Process returned 0 (0x0) execution time : 14.896 s
Press any key to continue.
```