Q1 Output: a) FIFO

```
PS C:\6th-sems\OS labs> cd "c:\6th-sems\OS labs\"; if
  { gcc lab_12_1.c -o lab_12_1 } ; if ($?) { .\lab_12_1
 Enter the length of the reference string: 13
 Enter the reference string: 7 0 1 2 0 3 0 4 2 3 0 3 2
 Enter the number of frames: 3
 The Page Replacement Process is:
                                  PF No. 1
         7
         7
                 0
                                  PF No. 2
         7
                 0
                         1
                                  PF No. 3
                 0
                         1
                                  PF No. 4
         2
         2
                 0
                         1
                                  PF No. 5
         2
         2
                 3
                         0
                                  PF No. 6
                                  PF No. 7
         4
                 3
                         0
                 2
                                  PF No. 8
         4
                         0
         4
                 2
                         3
                                  PF No. 9
                                  PF No. 10
         0
                 2
                         3
                 2
                         3
         0
         0
                 2
                         3
 Total Page Faults using FIFO: 10
```

Q1 Output: b)LRU

```
PS C:\6th-sems\OS labs> cd "c:\6th-sems\OS labs\" ; if
{ gcc lab_12_2.c -o lab_12_2 } ; if ($?) { .\lab_12_2 }
Enter the length of the reference string: 13
Enter the reference string: 7 0 1 2 0 3 0 4 2 3 0 3 2
Enter the number of frames: 3
The Page Replacement Process is:
7
                        PF No. -- 1
7
        0
                        PF No. -- 2
        0
                        PF No. -- 3
                1
2
        0
                1
                        PF No. -- 4
        0
                1
2
        0
                3
                        PF No. -- 5
2
        0
                3
4
       0
               3
                        PF No. -- 6
                        PF No. -- 7
        0
                2
4
       3
               2
4
                        PF No. -- 8
0
       3
               2
                        PF No. -- 9
       3
0
                2
0
Total number of page faults using LRU: 9
```

Q1 Output:

c) Optimal Page Replacement

```
PS C:\6th-sems\OS labs> cd "c:\6th-sems\OS labs\" ; if
{ gcc lab_12_3.c -o lab_12_3 } ; if ($?) { .\lab_12_3 }
 Enter number of frames: 3
 Enter number of pages: 13
 Enter page reference string: 7 0 1 2 0 3 0 4 2 3 0 3 2
         0
         0
         0
        0
 2
         0
 2
         0
 2
         4
                 3
 2
        4
                 3
 2
        4
        0
 2
         0
Total Page Faults = 7
```

Q1 Output:

d) MRU

```
PS C:\6th-sems\OS labs> cd "c:\6th-sems\OS labs\" ; if ($?) { gcc lab_12_4.c -o lab_12_4 } ; if ($?) { .\lab_12_4 } Array in most recently used fashion: 5 6 1 9 3 PS C:\6th-sems\OS labs> []
```