7. LRU

PROGRAM:

#include<stdio.h>

int main()

{

int m, n, position, k, l;

int a = 0, b = 0, page\_fault = 0;

int total\_frames = 3;

int frames[total\_frames];

int temp[total\_frames];

int pages[] = {1,2,3,2,1,5,2,1,6,2,5,6,3,1,3,6,1,2,4,3};

int total\_pages = sizeof(pages)/sizeof(pages[0]);

for(m = 0; m < total\_frames; m++){

frames[m] = -1;

}

for(n = 0; n < total\_pages; n++)

{

printf("%d: ", pages[n]);

a = 0, b = 0;

for(m = 0; m < total\_frames; m++)

{

if(frames[m] == pages[n])

{

a = 1;

b = 1;

break;

}

}

if(a == 0)

{

for(m = 0; m < total\_frames; m++)

{

if(frames[m] == -1)

{

frames[m] = pages[n];

b = 1;

page\_fault++;

break;

}

}

}

if(b == 0)

{

for(m = 0; m < total\_frames; m++)

{

temp[m] = 0;

}

for(k = n - 1, l = 1; l <= total\_frames - 1; l++, k--)

{

for(m = 0; m < total\_frames; m++)

{

if(frames[m] == pages[k])

{

temp[m] = 1;

}

}

}

for(m = 0; m < total\_frames; m++)

{

if(temp[m] == 0)

position = m;

}

frames[position] = pages[n];

page\_fault++;

}

for(m = 0; m < total\_frames; m++)

{

printf("%d\t", frames[m]);

}

printf("\n");

}

printf("\nTotal Number of Page Faults:\t%d\n", page\_fault);

return 0;

}

OUTPUT:

