GRAPHIC ERA HILL UNIVERSITY, DEHRADUN
(Answer Sheet for online examination Aug, 2021)
CAMPUS :- DEHRADUN

Name :- Shivani Negi, Univ Rollno :- 2023099, Student Id :- 20052026, Date :- 27/08/2021, Course :- B.Sc (IT), Branch :- IT
Sem :- 2nd, Section :- 'A', Subject Code :- PBI202
Subject Name :- Operating System Practical Exam. Page No :- 1

Q.) Write a C Program Code for Worst fit Memory Management Scheme.

Source Code

```
#include<stdio.h>
#include<conio.h>
#define MAX 25
void main()
{ int frag[MAX], b[MAX], f[MAX], i, j, nb, nf, temp,
  highest=0;
  static int bf[MAX], ff[MAX];
  printf("\nEnter the number of blocks:");
  scanf("%d", &nb);
  printf("Enter the number of files:");
  scanf("%d", &nf);
  printf("\nEnter the size of the blocks:-\n");
  for(i=1; i<=nb; i++)
    { printf("Block %d:", i);
      scanf("%d", &b[i]);
    }
```

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Subject Name :- Operating System Practical, Page No :- 2

```
Printf("Enter the size of the files :-\n");
  for(i=1; i<=nf; i++)
   {
     Printf("file %d:", i);
     Scanf("%d", &f[i]);
   }
  for (i=1; i<=nf; i++)
   {
     for(j=1; j<=nb; j++)
      {
       if(bf[j] != 1) // if bf[j] is not allocated
        {
          temp = b[j] - f[i];
         if(temp>=0)
         if (highest<temp)
         {
           ff[i] = j;
          highest = temp;
         }
        }
      }
```

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Q1.)

```
        frag[i] = highest;
        bf[ff[i]] = 1;
        highest = 0;
      }
    Printf("\nfileno\t file_size\t Block_no\t Block_size\t
            fragment");
    for(i=1; i<=nf; i++)
      Printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d", i,
              f[i], ff[i], b[ff[i]], frag[i]);
    }
```

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"C:\Users\Lenovo\Desktop\C Program\Loops\worst fit algorithum.exe"

```
 enter the number of blocks:3
enter the number of files:2

 enter the size of the blocks :-
block 1:5
block 2:2
block 3:7
enter the sizes of files :-
files 1:1
files 2:4

 file_no        file_size       block_no        block_ size     fragment
1               1               3               7               6
2               4               3               7               3
Process returned 2 (0x2)   execution time : 31.639 s
Press any key to continue.
```

Type here to search

Lenovo

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Ques)2.) (Program to implement SCAN DISK Scheduling Algorithm and Calculate the total distance.)

```
#include<stdio.h>
#include<stdlib.h>
int main()
{ int i,j,sum=0,n;
  int d[20];
  int disk; // loc of head
  int temp, max;
  int dloc; // loc of disk in array
  Printf("Enter number of location(f");
   Scanf("%d", &n);
  Printf("Enter position of head(+");
   Scanf("%d", &disk);
  Printf("Enter elements of disk queue \n");
    for(i=0; i<n; i++)
     { Scanf("%d", &d[i]);
     }
    d[n] = disk;
     n = n+1;
```

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Ques 2.)

```
for(i=0; i<n; i++) // Sorting disk locations
{
  for(j=i; j<n; j++)
  { if d[i] > d[j]
    { temp = d[i];
      d[i] = d[j];
      d[j] = temp;
    }
  }
}
Max = d[n];
for(i=0; i<n; i++) // to find loc of disk of array
{ if(disk==d[i]) { dloc=i; break; }
}
for( i=dloc; i>=0; i--)
{ printf("%d -->", d[i]);
}
Printf("0-->");
```

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Ques 2.)

```
for(i=ddock+1; i<n; i++)
  {
    printf("%d-->",d[i]);
  }
  Som = diskt+Max;
printf("\n Movement of total cylinders %d",Som);
return 0;
}
```

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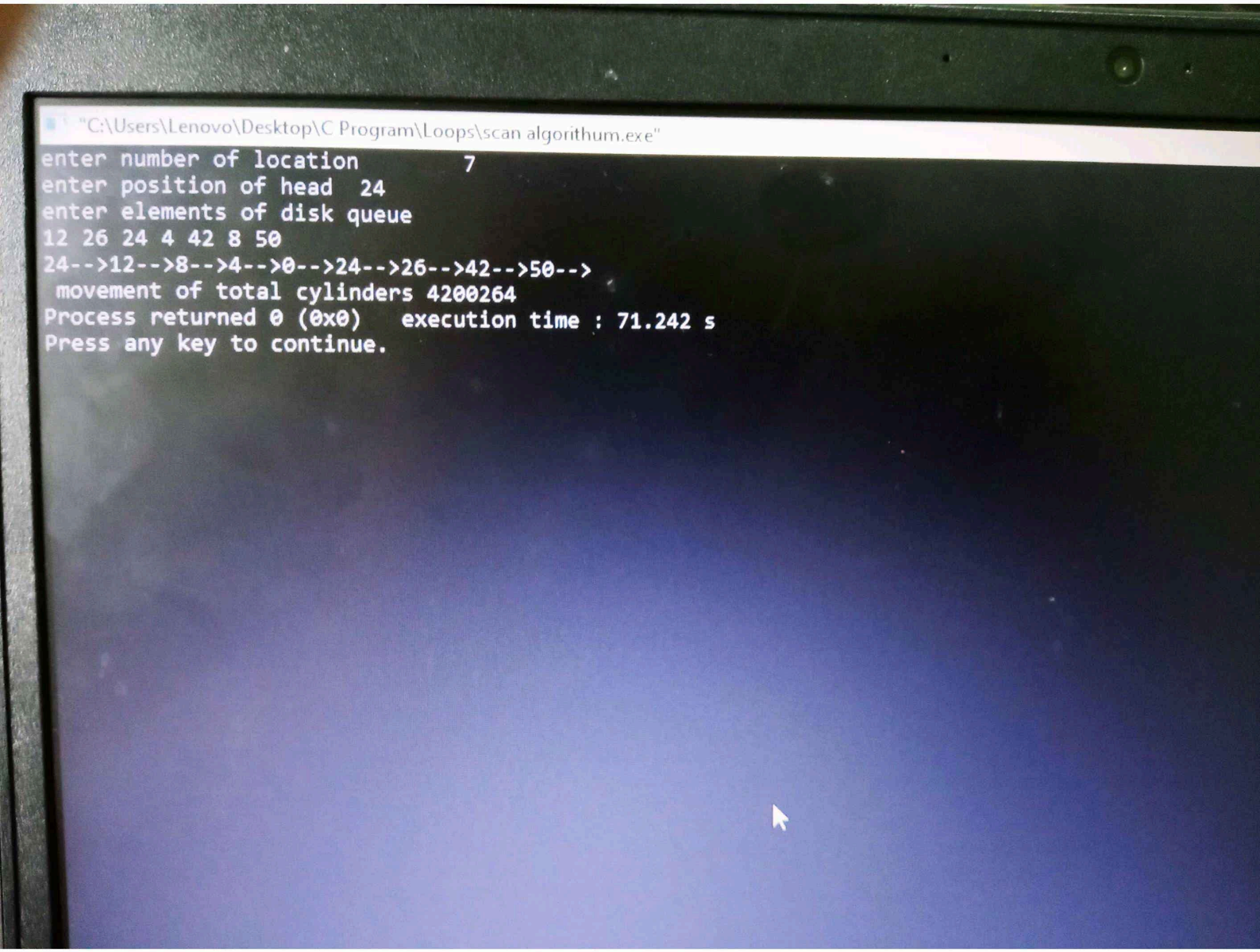
"C:\Users\Lenovo\Desktop\C Program\Loops\scan algorithum.exe"
enter number of location 7
enter position of head 24
enter elements of disk queue
12 26 24 4 42 8 50
24-->12-->8-->4-->0-->24-->26-->42-->50-->
movement of total cylinders 4200264
Process returned 0 (0x0) execution time : 71.242 s
Press any key to continue.