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University Roll no => 2023065 Student I'd => 20052052
Course => BSC-IT Date => 27/08/21
Semester => II Section => A
Subject Name => Operating System Subject Code => PIBI 202
Campus => Dehradun Pg => (1)

Answer 1

```
# 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];
  e
 Printf ("\n\t Memory Management
     Scheme Worst fit");
```

Mansi Negi

```
Printf("Enter the number of files:");
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++)
  {
    Print("Block %d:",i);
    Scanf("%d",&b[i]);
  }
Print1("Enter the size of the files:-\n");
for(i=1;i<nf;i++)
  {
    Print f("file %d:",i);
    Scanf("%d",&f[i]);
  }
```

Mansi

```
for (i=1; i<=nf=1

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;
   }
     }
    }
```

Hanii

```
frag [i] = highest;
bf [ff[i]] = 1;
highest = 0;
}
Printf("\nfile_no:\tfile_size
:\t block_no:\t Block_size:\tfragement");
for (i = 1; i<=nf; i++)
Printf("\n%d\t\t%d\t\t%d\t\t%d",
i, f[i], ff[i], b[ff[i]], frag[i]);
getch();
}
```

Mansi

```
15  scanf("%d",&nf);
16  printf("\nEnter the size of the blocks:-\n");
17  for(i=1;i<=nb;i++) {printf("Block %d:",i);scanf("%d",&b[i]);}
18  printf("Enter the size of the files :-\n");
19  for(i=1;i<=nf;i++) {printf("File %d:",i);scanf("%d",&f[i]);}
20
21  for(i=1;i<=nf;i++)
22  {
23   for(j=1;j<=nb;j++)
```

input

```
File 2:4

File_no:        File_size :     Block_no:       Block_size:     Fragement
1               1               3               7               6
2               4               1               5               1

...Program finished with exit code 0
Press ENTER to exit console.
```

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Section = A

Subject Code => PBI 202

Answer 2

```
# include<stdio.h
int absoluteValue (int);
Void main()
{
  int
queue [25], n, headposition, i, j, k, seek = 0;
maxrange,
  difference, temp, queue 1 [20], queue 2
[20], temp 1 = 0, temp 2 = 0;
  float average seek tim;
```

Mansi

```
Printf(" Enter the maximum range of
        Disk:");
  scanf("%d", &maxrange);
Printf("Enter the number of queue requests");
  scanf("%d", &n);
Printf(" Enter the intial head position:");
  scanf("%d", &head position);
Printf(" Enter the disk position to
 be read (queue):");
  for(i = 1; i<=n; i++)
  {
scanf("%d", &temp);
 if(temp > head position)
 {
  queue1[temp1] = temp;
   temp1++;
  }
```

Mansi

```
else
{
  queue2[temp2] = temp;
      temp2++;
  }
   }
for(i=0; i<temp1-1; i++)
    {
    for(J=i+1; J<temp1; J++)
    {
     if queue1[i]>queue1[J])
     {
     temp = queue1[i];
     queue1[i] = queue1[J];
     queue1[J] = temp;
      }
      }
       }
```

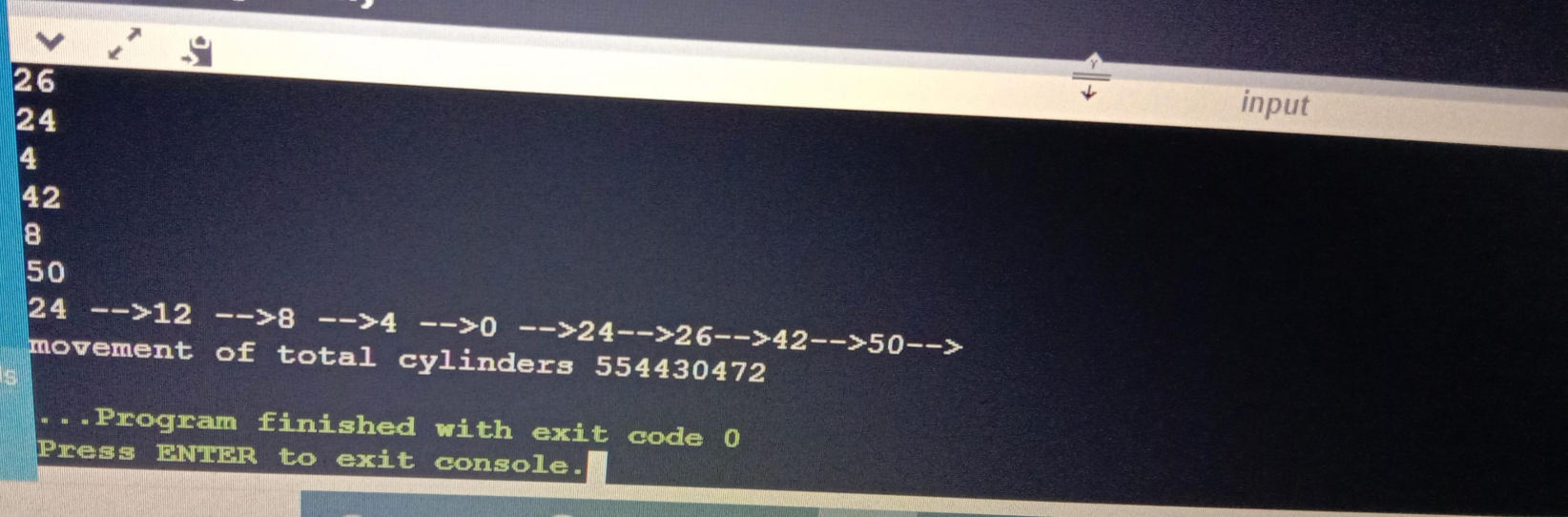
Hans.

```
for (i = 0; i < temp2 - 1; i++)
    {
      for(J = i+1; J<temp2; J++)
      {
    temp = queue2[i];
    queue2[i] = queue2[J];
    queue2[J] = temp;
    }
    }
    }
for(i=1, J=0; J<temp1; i++, J++)
    {
    queue[i] = queue1[J];
```

```
}
queue [i] = maxrange;
for (i = temp1 + 2, j = 0; j < temp2; i++,
                                j++)
{
  queue [i] = queue2 [j];
}
queue [i] = 0;
queue [0] = headposition;
for (j = 0; j <= n; j++)
{
  difference = absoluteValue (queue [j+1]
  - queue [j]);
  Suk = Suk + difference;
  Printf ("Disk head moves from position
%d to %d with Suk %d \n", queue [j]
, queue [j+1], difference);
}
```

```
average Seek time = Seek / (float) n;
Printf ("total Seek time = %d \n", Seek);
Printf ("Average Seek time = %f \n",
        average Seek time);
}
int absolute Value (int x)
{
  if (x>0)
  {
    return x;
  }
  else
  {
    return x* -1;
  }

}
```


input
26
24
4
42
8
50
24 -->12 -->8 -->4 -->0 -->24-->26-->42-->50-->
movement of total cylinders 554430472
...Program finished with exit code 0
Press ENTER to exit console.