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Subject - Operating System

Aman

Ans 2)

```
#include <stdio.h>
int absolute value (int);
  void main ()
{
  int
queue[25], n, headposition, i, j, K, seek = 0,
   maxrange,
      difference, temp, queue1[20], queue2[20],
      temp1 = 0, temp2 = 0;
Printf("Enter the maximum range of Disk : ");
 scanf("%d", &maxrange);
 Printf(" Enter the number of queue requests :");
 scanf("%d", &n);
 Printf("Enter the disk positions to be read(queue):");
 for (i = 1; i <= n; i++)
```

```
{
   scanf("%d", &temp);
    if(temp> headposition)
   {

      scanf("%d", &temp);
      if(temp >

       queue1[temp1] = temp;
          temp1++;
}
else
{
     queue2[temp2] = temp;
          temp2++;
   }
}

  for(i=0; i<temp1-1; i++)
  {
    for( j = j+1; j<temp1; j++)
  {
    if(queue1[i]> queue1[j]
```

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```
{
    temp = queue1[i];
    queue1[i] = queue1[j];
    queue1[j] = temp;
  }
 }
}
 for (i=0; i< temp2-1; i++)
 {
  for (j = i+1; j< temp2 ; j++)
  {
   if( queue2[i]< queue2[j])
{
    temp = queue2[i];
    queue2[i] = queue 2[j];
    queue2[j] = temp;
  }
 }
}
```

Array

```
for (i=1, j=0; j< temp 1 ; i++, j++)
{
    queue [i] = queue1 [j];
}
    queue [i] = maxrange;
for (i = temp 1+2, j=0; j< temp2 ; i++, j++)
{
    queue[i] = queue2 [j];
}
  queue [i] = 0;
  queue [0] = headposition;
for (j=0; j<=n; j++)
{
    difference = absolute value (queue [j+1] -
      queue[j]);
    Seek = Seek + difference;
}
```

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```
Printf("Total head movement = %d\n", Seek);
}
int absolute Value (int x)
{
   if(x>0)
{
    return x;
}
  else
  {
     return x*-1;
  }
}
```

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