NAME → Priyanshu Uniyal. STUDENT ID → 2005 2070. (1)
UNIVERSITY Roll No → 2023079. DATE → 27/08/2021
SUB NAME → Operating System. COURSE → BSc IT ; SEC → A.
SUB CODE → PRI 202. SEM → 2nd.

Ans → (2). → Code.

```
#include <stdio.h>.
int absolute value (int);
Void main ().
{
int queue[25], n, head position, i, j, k seek = 0;
max range:
differences, temp, queue1[20], queue2[20], temp1=0, temp2=0;
float average. seek time;.
Printf ("Enter the maximum range of Disk:");.
Scanf ("%d", & max range);
Printf ("Enter the number of queue requests");
Scanf ("%d", &n);
Printf ("Enter the initial head Position:");
Scanf ("%d", & head position");
Printf ("Enter the disk positions to be read (queue):");
for (i=1; i<=n; i++).
{
Scanf ("%d", & temp);
if (temp > head position)
{
queue1[i] temp];temp;
temp ++;
} else.
{
```

Priyanshu
27/08/2021

```
queue2[temp2] = temp;
    temp2++;
}
}
for(i=0; i<temp1-1; i++).
{
for(j=i+1; j<temp1; j++).
{
if(queue1[i] < queue1[j]).
    queue1[i] = queue1[j];
    queue[j] = temp;
}
}
for[i=1, j=0; i<temp1; i++, j++).
{
queue[i] = queue[j];
}
queue[i] = maxrange;
for(i=temp1+2 j=0; j<temp2; j++).
{
 queue[i] = queue2[i];
}
    queue[i] = 0;
    queue[0] = headposition;
    for(j=0 j<=n; j++).
{
difference = absolute value(queue[i+1] - queue[i]);
seek = seek + difference;
printf("Disk head move from position %d to %d with seek %d
\n")
queue[i], queue[i++], difference);
```

Priyanshu
27/08/2021

```
{
average seek time = seek/(float)n;
printf("\nTotal 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;
  }
}.
```

```
Enter the number of Requests
7
Enter the Requests sequence
12
26
24
4
42
8
50
Enter initial head position
24
Enter total disk size
100
Total head movement is 170
PS C:\Users\hp\c programming\operating system>
```