

Graphic Era Hill University, Dehradun
(Answer Sheet for Online Examination Aug. 2021)

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Date: 23/08/2021 Course: B.Sc. I.T. Branch: Dehradun Sem.: III Section: B
Subject Name: Operating system Subject Code: 651 Page No. 1
Operating system End term 10/11/202

Q2

```
#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;
    float average seek time;
    printf("Enter the maximum range of disk: ");
    scanf("%d", &maxrange);
    printf("Enter the number of queue requests:");
    scanf("%d", &n);
    printf("Enter the initial head position:");
    scanf("%d", &headposition);
    printf("Enter the disk positions to be head (queue): ");
    for (i=1; i<n; i++)
    {
        scanf("%d", &temp);
        if (temp > headposition)
        {
            queue1[temp1] = temp;
            temp1++;
        }
    }
}
```

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Sharma
Signature of Student

else

{
 queue 2[temp 2] = temp;
 temp 2++;

}

}

for (i = 0; i < temp 1 - 1; i++)

{

 for (j = i + 1; j < temp 1; j++)

{

 if (queue 1[i] > queue 1[j])

{

 temp = queue 1[i];

 queue 1[i] = queue 1[j];

 queue 1[j] = temp

}

}

}

for (i = 0; i < temp 2 - 1; i++)

{

 for (j = i + 1; j < temp 2; j++)

{

 if (queue 2[i] > queue 2[j])

{

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temp = queue 2(i) :

queue 2(i) = queue 2(j) :

queue 2(j) = temp :

}

}

}

for (i = 1, j = 0; i < temp 1, i++, j++)

queue (i) = queue 1(j)

queue (i) = max range;

for (i = temp 1 + 2, j = 0; i < temp 2; i++, j++)

{

queue (i) = queue 2(j);

}

queue (i) = 0

queue (0) = head position :

for j = 0; j < n; j++)

{

difference =

absolute Value (queue (i+1) - queue (j)) :

seek = seek + difference

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printf ("Disk head moves from position
%d to %d with seek %d\n",

queue[i], queue[i+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;

}

}