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Q.2 Code

```
#include <stdio.h>
int absoluteValue(int);
void main()
{
    int queue[25], n, head position, i, j, k, seek = 0, max range,
    difference, temp, queue[20], queue2[20], temp1 = 0, temp2 = 0;
    printf("Enter the maximum range of Disk:");
    scanf("%d", &max range);
    printf("Enter the number of queue request:");
    scanf("%d", &n);
    printf("Enter the initial head position:");
    scanf("%d", &head position);
    printf("Enter the disk position to be read (queue):");
    for (i = 1; i <= n; i++)
    {
        scanf("%d", &temp);
```

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```

if (temp > headposition)
{
    queue1[temp1] = temp;
    temp1++;
}
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;
        }
    }
}
for (i = 0; i < temp2 - 1; i++)
{
    for (j = i + 1; j < temp2; j++)
    {

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    If (queue2[i] < queue2[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] = max range;
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]);
    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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