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Subject: Operating System (End Term Practical)

lovely

Ans 2 -

```
#include <stdio.h>
```

```
int size = 7;
```

```
int disk_size = 100;
```

```
void SCAN(int arr[], int head, string direction)  
{
```

```
    int seek_count = 0;  
    int distance, cur_track;
```

```
    vector<int> left, right;
```

```
    vector<int> seek_sequence;
```

```
    if (direction == "left")
```

```
        left.push_back(0);
```

```
    else if (direction == "right")
```

```
        right.push_back(disk_size - 1);
```

```
    for (int i = 0; i < size; i++)
```

```
    {  
        if (arr[i] < head)
```

```
            left.push_back(arr[i]);
```

```
        if (arr[i] > head)
```

```
            right.push_back(arr[i]);  
    }
```


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```
left.sort();
right.sort();
int run = 2;
while (run--)
{
    if (direction == "left")
    {
        for (int i = left.size() - 1; i >= 0; i--)
        {
            cur_track = left[i];
            seek_sequence.push_back(cur_track);
            distance = abs(cur_track - head);
            seek_count += distance;
            head = cur_track;
        }
        direction = "right";
    }
    else if (direction == "right")
    {
        for (int i = 0; i < right.size(); i++)
        {
```


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(3)

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```
cur_track = right[i];
```

```
seek_sequence.push_back(cur_track);
```

```
distance = abs(cur_track - head);
```

```
seek_count += distance;
```

```
head = cur_track;
```

```
}
```

```
direction = "left";
```

```
}
```

```
}
```

```
printf("Total distance = %d", seek_count);
```

```
}
```

```
}
```

```
int main ()
```

```
{
```

```
int arr[size] = { 12, 26, 24, 4, 42, 8, 50 };
```

```
int head = 24;
```

```
String direction = "left";
```

```
SCAN(arr, head, direction);
```

```
return 0;
```

```
}
```

Shell

Clear

^ Total distance = 74

> |