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Course - BSc (I.T) Section - B

2)

```
# include <stdio.h>
# include <stdlib.h>
int main ()
{
  int
RQ [100],i,j,n, TotalHeadMoment = 0,initial,size, move;
printf ("Enter the number of Requests\n"); scanf ("%d",&n);
printf (" Enter the Requests sequence\n");
for( i = 0; i<n; i++)
scanf ("%d, & RQ [i]);
printf ("Enter initial head position \n");
scanf ( "%. d, & initial);
printf ("Enter total disk size\n");
scanf ("%. d" ,& size);
printf ("Enter the head movement direction for high 1 and
 for low 0 \n");
scanf ("%d" , &move);
  // logic for Scan disk scheduling
  /* logic for sort the request array */ for = (i=0; i<n; i++)
{ for (j=0; j< n-j-1; j++)
{ if (RQ [j] > RQ [j+1])
{ int temp;
  temp = RQ [j];
  RQ (j) = RQ [j+1];
  RQ (j+1) = temp;
}
}
}
```

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```
int index;
for (i=0; i<n; i++)
{ if (initial < RQ[i])
  {
    index = i;
    break;
  }
}
// if movement is towards high value if (move == 1)
{ for (i=index; i<n; i++)
  { TotalHeadMoment = TotalHeadMoment + abs(RQ[i]-initial);
    initial = RQ[i];
  }
  //last movemen for max size
TotalHeadMoment = TotalHeadMoment + abs(size-RQ[i-1]-1);
    initial = size -1;
  for (i=index-1; i>=0; i--)
  {
TotalHeadMoment = TotalHeadMoment + abs(RQ[i]-initial);
    initial = RQ[i];
  }
}
// if movement is towards low value else
{ for (i=index-1; i>=0; i--)
{
TotalHeadMoment = TotalHeadMoment + abs(RQ[i+1]-0);
    initial = 0;
  for (i=index; i<n; i++)
{
```

```
Total Head Moment = Total Head Moment + abs (RQ[i] - initial)
        initial = RQ[i];
    }
}
printf("Total head movement is %d",
        Total Head Momen);
    return 0;
}
```