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Roll no :- 53

```c
#include<stdio.h>

#include<graphics.h>

#include<math.h>

#include<dos.h>

int main()

{
int i,gd=DETECT,gm; int
x1,y1,x2,y2,xmin,xmax,ymin,ymax,xx1,xx2,yy1,yy2,dx,d;
float t1,t2,p[4],q[4],temp; x1=120; y1=120; x2=300;
y2=300; xmin=100; ymin=100; xmax=250; ymax=250;
initgraph(&gd,&gm," ");
rectangle(xmin,ymin,xmax,ymax); dx=x2-x1; dy=y2-y1;
p[0]=-dx; p[1]=dx; p[2]=-dy; p[3]=dy; q[0]=x1-xmin;
q[1]=xmax-x1; q[2]=y1-ymin; q[3]=ymax-y1;
for(i=0;i<4;i++)

{
if(p[i]==0)
{
prin ("line is parallel to one of the clipping boundary");
if(q[i]>=0)
{
if(i<2)
{
if(y1<ymin)
{
y1=ymin;
```

```
}
if(y2>ymax)
{
y2=ymax;
}
line(x1,y1,x2,y2);
}
if(i>1)
{
if(x1<xmin)
{
x1=xmin;
}
if(x2>xmax)
{
x2=xmax;
}
line(x1,y1,x2,y2);
}
}
}
}
t1=0; t2=1;
for(i=0;i<4;i+)
{
temp=q[i]/p[i];
if(p[i]<0)
{
if(t1<=temp)
t1=temp;
```

```
      }
      else
      {
      if(t2>temp) t2=temp;
      }
      }
      if(t1<t2)
      {
      xx1 = x1 + t1 * p[1];
      xx2 = x1 + t2 * p[1];
      yy1 = y1 + t1 * p[3];
      yy2 = y1 + t2 * p[3];
      line(xx1,yy1,xx2,yy2)
      ;
      }
      delay(5000);
      closegraph();
      }
```