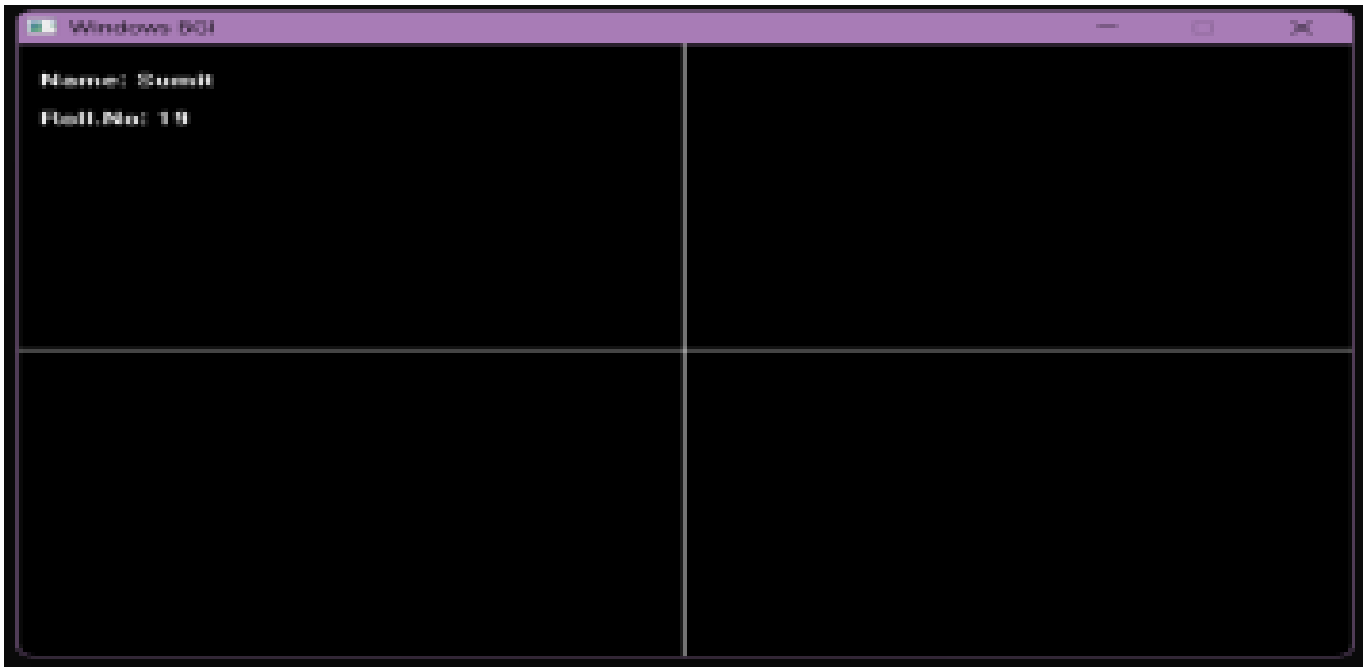
COMPUTER GRAPHICS PRACTICAL MANUAL

Practical 1:

A. Draw a co-ordinate axis at the center of the screen.

```
#include<graphics.h>
#include<stdlib.h>
#include<stdio.h>
#include<conio.h>
int main(void)
{
int gd = DETECT,gm;
int xmax, ymax;
initgraph(&gd,&gm,"C:\\TC\\BGI");
xmax =getmaxx();
ymax =getmaxy();
line(xmax/2,0,xmax/2,ymax);
line(0,ymax/2,xmax,ymax/2);
getch();
closegraph();
return 0;
}
```



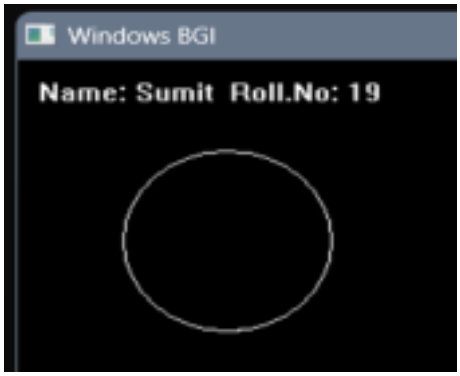
B. Arc Function in C

```
#include<graphics.h>
#include<conio.h>
int main()
{
int gd=DETECT, gm;
initgraph(&gd,&gm, "c:\\TC\\bgi");
arc(150,150,0,135,50);
outtextxy(150,130,"ARC");
outtextxy(10,20,"Name: Shraddha");
getch();
closegraph();
return 0;
}
```

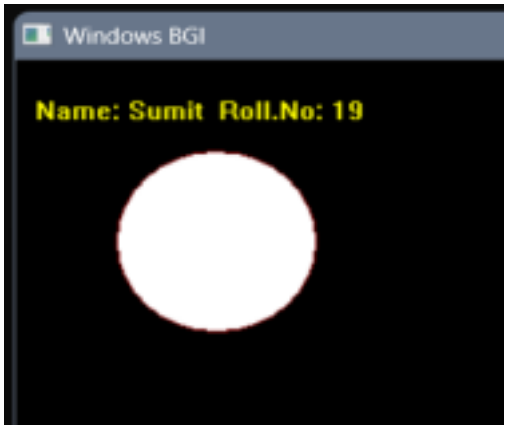
Output:

C. Circle Function in C:

```
#include<graphics.h>
#include<conio.h>
int main()
{
int gd=DETECT, gm;
initgraph(&gd,&gm, "c:\\TC\\bgi");
circle(100,100,50);
getch();
closegraph();
return 0;
}
```



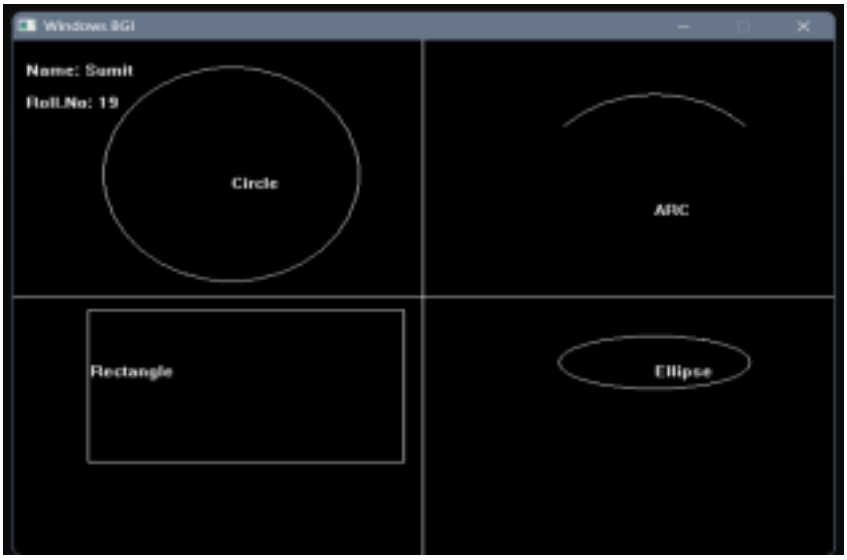

```
#include<graphics.h>
#include<conio.h>
int main()
{
int gd=DETECT, gm;
initgraph(&gd,&gm, "c:\\TC\\bgi");
setcolor(RED);
circle(100,100,50);
floodfill(100,100,RED);
setcolor(YELLOW);
outtextxy(10,20,"Name: Shraddha");
getch();
closegraph();
return 0;
}
```



Practical 2:

Divide your screen into four regions, draw circle, rectangle, ellipse and half ellipse in each region with appropriate message.

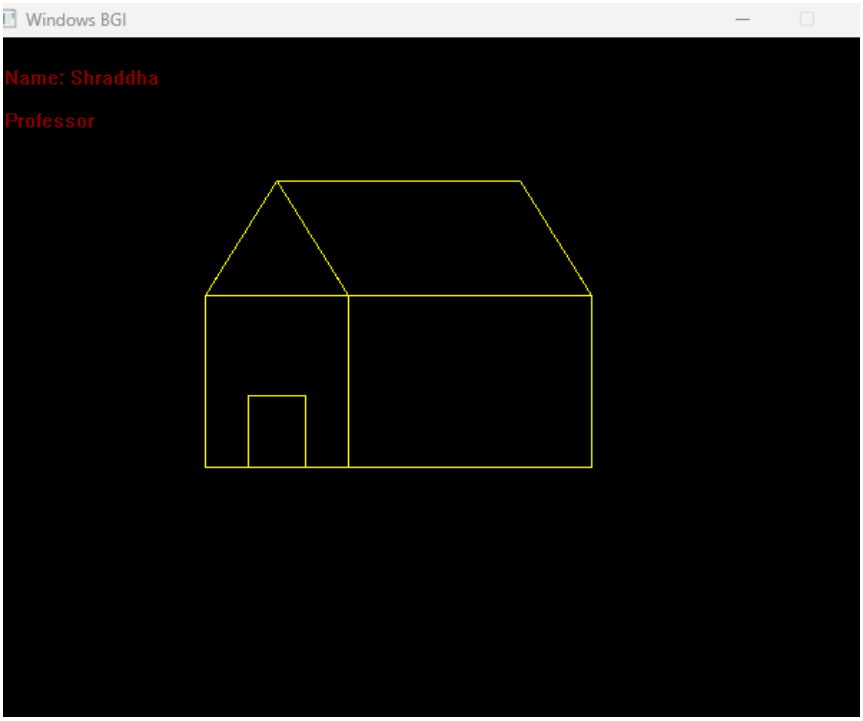
```
#include<graphics.h>
#include<stdlib.h>
#include<stdio.h>
#include<conio.h>
int main(void)
{
      int gd = DETECT,gm;
      int xmax, ymax;
      initgraph(&gd,&gm,"C:\\TC\\BGI");
      setcolor(getmaxcolor());
      xmax =getmaxx();
      ymax =getmaxy();
      line(xmax/2,0,xmax/2,ymax);
      line(0,ymax/2,xmax,ymax/2);
      circle(170,125,100);
      outtextxy(170,125,"Circle");

      rectangle(58,251,304,392);
      outtextxy(60,300,"Rectangle");

      arc(500,150,45,135,100);
      outtextxy(500,150,"ARC");

      ellipse(500,300,0,360,75,25);
      outtextxy(500,300,"Ellipse");

      outtextxy(10,20,"Name: Sumit ");
 outtextxy(10,50,"Roll.No: 19 ");
      getch();
      closegraph();
      return 0;
}
```


Windows BGI
Name: Sumit
Roll.No: 19
Circle
ARC
Rectangle
Ellipse

Practical 3:

Draw a simple hut on the screen.

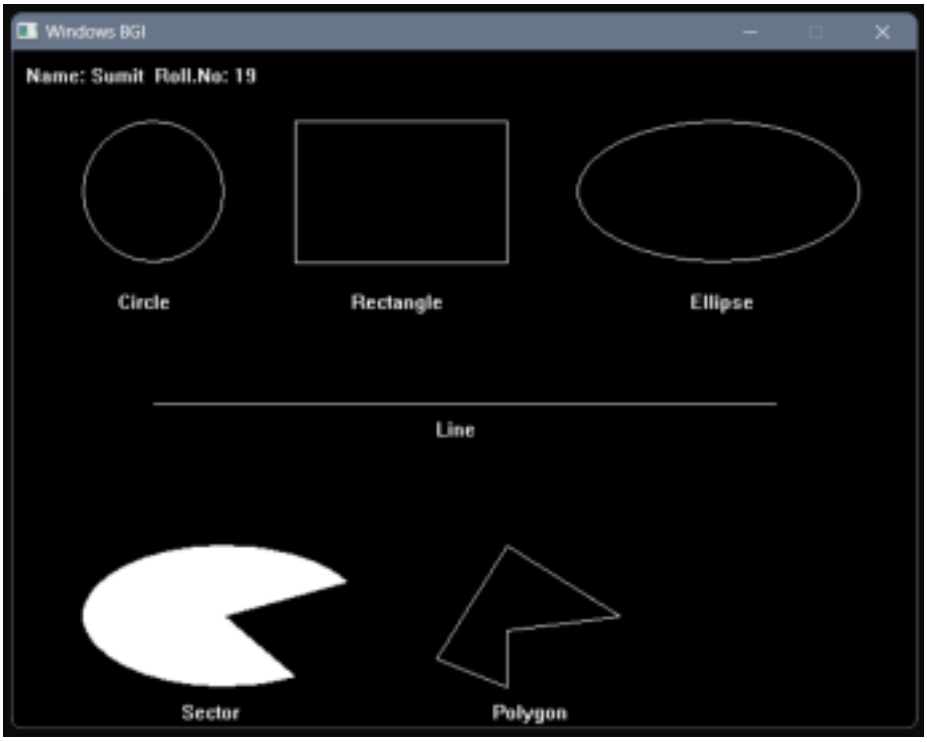
```
#include<graphics.h>
#include<stdlib.h>
#include<stdio.h>
#include<conio.h>
int main(void)
{
int gd = DETECT,gm;
int xmax, ymax;
initgraph(&gd,&gm,"C:\\TC\\BGI");
setcolor(YELLOW);
rectangle(150,180,250,300);
rectangle(250,180,420,300);
rectangle(180,250,220,300);
line(200,100,150,180);
line(200,100,250,180);
line(200,100,370,100);
line(370,100,420,180);
setcolor(RED);
outtextxy(10,20,"Name: Shraddha ");
outtextxy(10,50,"Professor ");
getch();
closegraph();
return 0;
}
```



Practical 4:

To draw circle, rectangle, ellipse, sector and polygon on a screen.

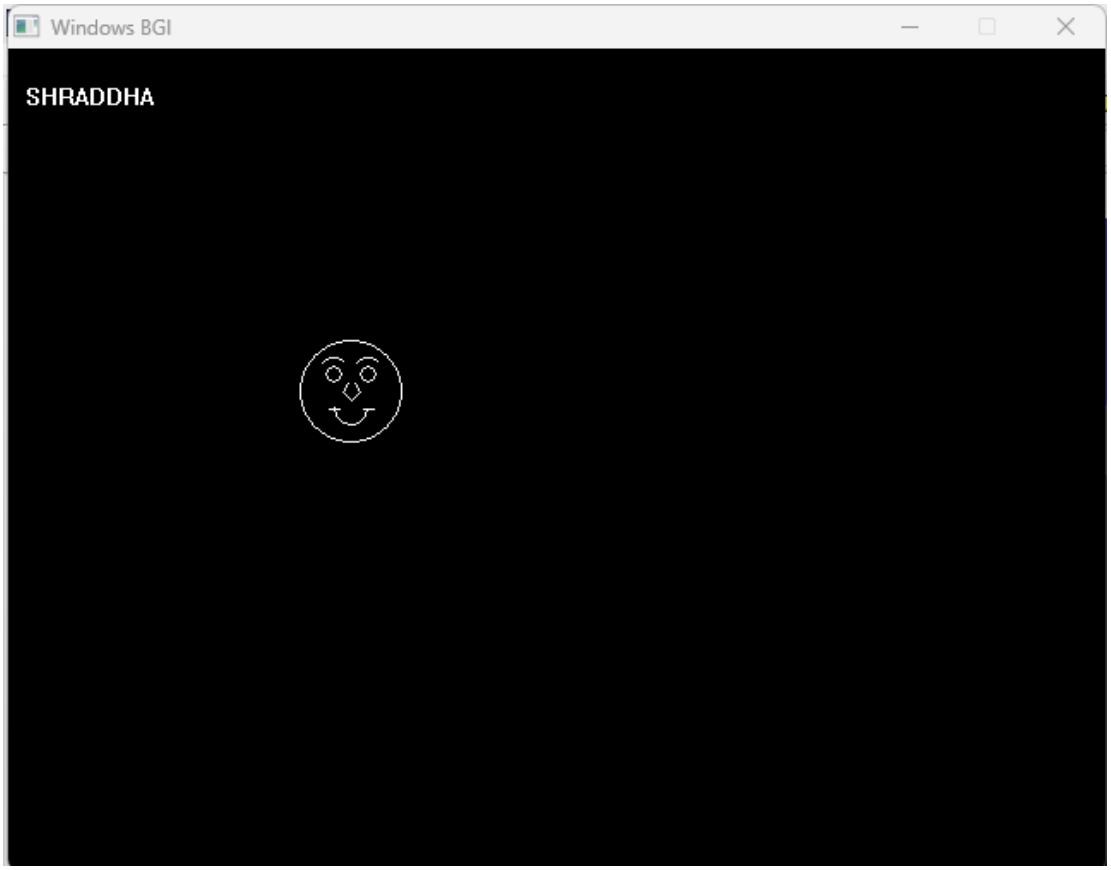
```
#include<graphics.h>
#include<conio.h>
int main()
{
int gd=DETECT,gm;
int poly[12]={350,450,350,410,430,400,350,350,300,430,350,450};
initgraph(&gd,&gm,"C:\\TC\\BGI");
circle(100,100,50);
outtextxy(75,170,"Circle");
rectangle(200,50,350,150);
outtextxy(240,170,"Rectangle");
ellipse(500,100,0,360,100,50);
outtextxy(480,170,"Ellipse");
line(100,250,540,250);
outtextxy(300,260,"Line");
sector(150,400,30,300,100,50);
outtextxy(120,460,"Sector");
drawpoly(6,poly);
outtextxy(340,460,"Polygon");
outtextxy(10,10," Shraddha ");
getch();
closegraph();
return 0;
}
```


Windows BGI
Name: Sumit Roll.No: 19
Circle
Rectangle
Ellipse
Line
Sector
Polygon

Practical 5:

Perform smiling face animation using graphic functions.

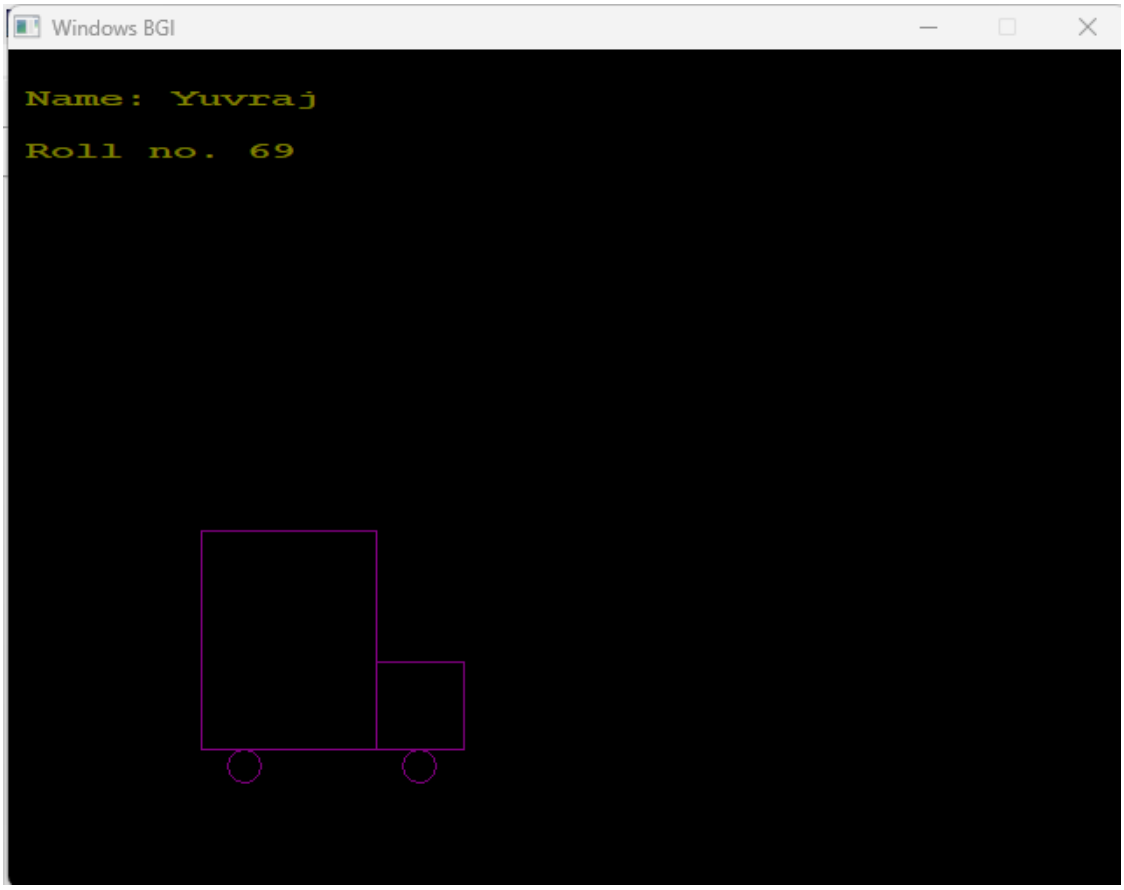
```
#include<graphics.h>
#include<conio.h>
#include<stdio.h>
int main()
{
int gd=DETECT,gm;
initgraph(&gd,&gm,"C:\\TC\\BGI");
circle(200,200,30);
circle(190,190,5);
arc(190,190,50,130,10);
circle(210,190,5);
arc(210,190,50,130,10);
arc(200,210,180,360,10);
line(187,210,193,210);
line(207,210,213,210);
line(198,195,195,200);
line(202,195,205,200);
line(195,200,200,205);
line(205,200,200,205);
outtextxy(10,20,"SHRADDHA");
getch();
closegraph();
}
```


Windows BGI
SHRADDHA

Practical 6:

Draw the moving car on the screen.

```
#include<graphics.h>
#include<dos.h>
#include<conio.h>
int main()
{
int gd=DETECT,gm;
int x;
initgraph(&gd,&gm,"C:\\TC\\BGI");
setbkcolor(WHITE);
for(x=0;x<=420;x=x+10)
{
cleardevice();
setcolor(RED);
rectangle(50+x,275,150+x,400);
rectangle(150+x,350,200+x,400);
setcolor(5);
circle(75+x,410,10);
circle(175+x,410,10);
outtextxy(10,20,"Name: SHRADDHA");
delay(100);
}
getch();
closegraph();
return 0;
}
```

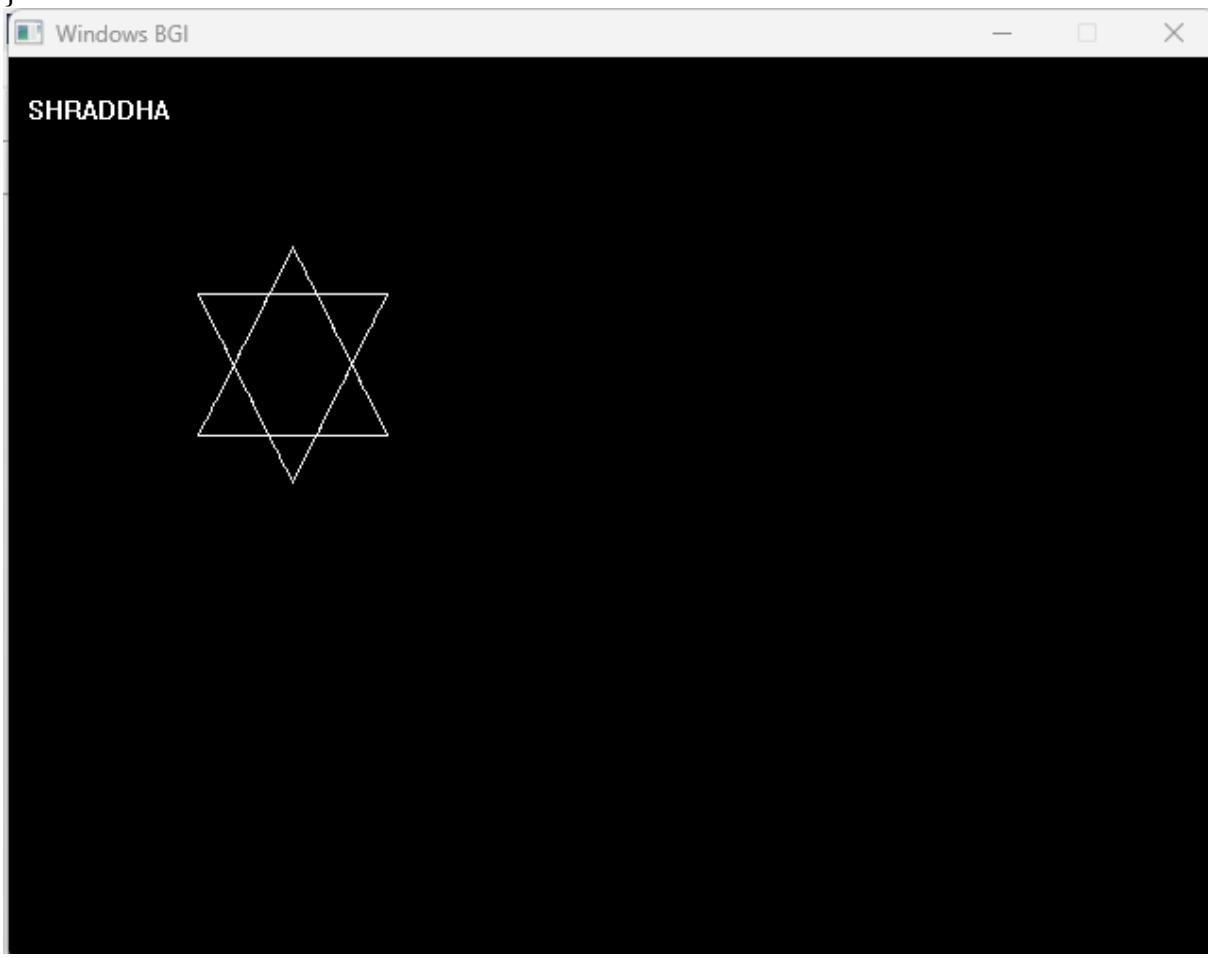

Windows BGI
Name: Yuvraj
Roll no. 69

Practical 7 :

To display simple shapes (Star) Using graphics

Primitives

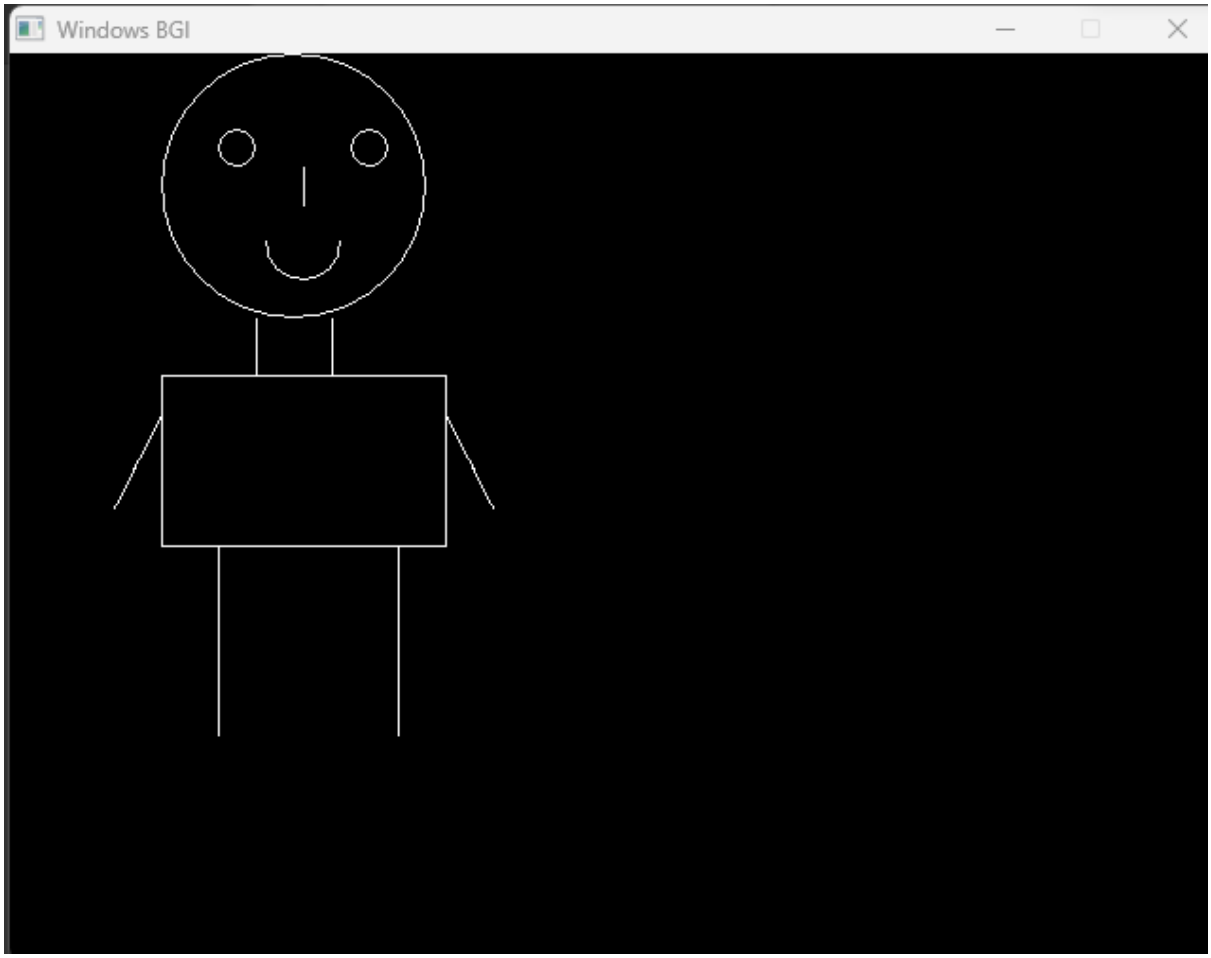
```
#include<graphics.h>
#include<conio.h>
void main()
{
int gd=DETECT,gm;
initgraph(&gd,&gm,"C:\\TC\\bgi");
line(150,100,100,200);
line(100,200,200,200);
line(200,200,150,100);
line(100,125,200,125);
line(100,125,150,225);
line(150,225,200,125);
getch();
closegraph();
}
```



Practical 8:

Develop a simple stick man using graphics functions.

```
#include<math.h>
#include<conio.h>
#include<graphics.h>
int main()
{
int gd=DETECT,gm;
int x,y,r,c1;
initgraph(&gd,&gm,"C:\\TC\\BGI");
circle(150,70,70);
circle(120,50,10);
circle(190,50,10);
line(155,60,155,80);
arc(155,100,180,360,20);
line(130,140,130,170);
line(170,140,170,170);
rectangle(80,170,230,260);
line(110,260,110,360);
line(205,260,205,360);
line(80,190,55,240);
line(230,190,255,240);
getch();
closegraph();
return 0;
}
```


Windows BGI

Practical 9:

Draw rainbow in the center of the screen:

```
#include<graphics.h>
#include<dos.h>
#include<conio.h>
int main()
{
int gd=DETECT,gm;
int x,y,r;
initgraph(&gd,&gm,"C:\\TC\\BGI");
x=getmaxx()/2;
y=getmaxy()/2;
for(r=20;r<200;r++)
{
        delay(100);
        setcolor(r/10);
        arc(x,y,0,180,r);
}
        getch();
        closegraph();
        return 0;
}
```