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Code : PBC-602

Q1

Ans

b

```
#include <graphic.h>
#include <stdio.h>
int ~~main~~()
{
void drawcircle(int x0, int 0, int radius)
{int x = radius;
 int y = 0;
 int err = 0;
 while (x>=y)
 { putpixel(x0+x, y0+y, 7);
   putpixel(x0+y, y0+x, 7);
   putpixel(x0-y, y0+x, 7);
   putpixel(x0-x, y0+y, 7);
   putpixel(x0-x, y0-y, 7);
   putpixel(x0-y, y0-x, 7);
   putpixel(x0+y, y0-x, 7);
   putpixel(x0+x, y0-y, 7);
   if (err <=0)
   { y+=1;
```

```
        err += 2*y+1;
    }
    if (err>0)
    {
        x-=1;
        err-=2*x+1;
    }
}
int main()
{
    int gdriver = DETET, gmode, error,
                x, y, r;
    printf("enter Radius of circle");
    scanf("%d", &r);
    printf("enter co-ordinates of center
                (x and y): ");
    scanf("%d %d", &x, &y);
    initgraph(&gdriver, &gmode, "");
    drawcircle(x, y, r);
    delay(99999);
    return 0;
}
```

Algorithm :-

Step 1 :- Start

Step 2 :- Put x = radius, y = 0
err = 1 - radius

Step 3 :- Repeat steps while x >= y
plot (x, y)
if (err <= 0)
set err += 2*y+1;
y += 1; (end if)
if (err > 0)
set x -= 1;
err -= 2*x+1; (end loop)

Step 4: end