Write a C program to calculate and print the roots of quadratic equation ax^2+bx+c, $(a\neq0)$. Print Roots if D>0 then "Roots are Real and Distinct" if D=0 then "Roots are Real and Equal" and D<0 then "Roots are Complex" and print the roots.

```c
#include<math.h>
void main()
    {
            int a,b,c,d;
            float x1, x2;
            clrscr();
            printf("\n Solved by Quadratic Equation ");
            printf("\n Enter the value of a, b and c ");
            scanf("%d%d%d",&a,&b,&c);
            d=(b*b)-4*a*c;
            if(d<0)
            {
                    printf("\n Imaginary Roots \n ");
            }
            else
            if(d==0)
            {
                    printf("\n Roots are real and equal ");
                    x1=-b/(2*a);
                    printf("\n Roots are %f",x1);
            }
            else
            if(d>0)
            {
                    printf("\n Roots are real and distinct ");
                    x1=(-b+sqrt(d))/(2*a);
```

```
            x2=(-b-sqrt(d))/(2*a);
             printf("\n Roots 1 = %f Roots 2 = %f",x1,x2);
        }
      getch();
      }
```

	Output
Enter the value of a, b and c <u>1 -5 6</u>	Roots are real and distinct Root1 2.000000 Rotts 2 = 3.000000
Enter the value of a, b and c <u>1 -4 4</u>	Roots are real and equal Roots are 2.000000