

Q1:-

```
#include<stdio.h>

float a1(float);

int main(){
    float num1;
    printf("Enter radius of a circle:\n");
    scanf("%f",&num1);
    printf("Area of a circle is %.2f",a1(num1));
    return 0;
}

float a1(float r){
    float a;
    a=3.14*r*r;
    return a;
}
```

Q2:-

```
#include<stdio.h>

float simple(float,float,float);

float simple(float x,float y,float z)
{
    float si;
    si=x*y*z/100.0;
```

```

        return si;
    }
int main()
{
    float p,r,t;
    printf("Enter the principle:\n");
    scanf("%f",&p);
    printf("Enter the rate:\n");
    scanf("%f",&r);
    printf("Enter the time:\n");
    scanf("%f",&t);
    printf("The simple interest is: %.2f",simple(p,r,t));
    return 0;
}

```

Q3:-

```

#include<stdio.h>

int a1(int);

int main(){
    int num1,s;
    printf("Enter a number:\n");
    scanf("%d",&num1);
    s=a1(num1);
}

```

```
    if(s==1)
        printf("Even");
    else
        printf("Odd");
    return 0;
}

int a1(int a){
    if(a%2==0)
        return 1;
    else
        return 0;
}
```

Q4:-

```
#include<stdio.h>

int a1(int);

int main()
{
    a1(1);
    return 0;
}

int a1(int i)
{
```

```
    for(i;i<=10;i++)  
        printf("%d\t",i);  
}
```

Q5:-

```
#include<stdio.h>  
  
int a1(int);  
  
int main()  
{  
    a1(1);  
    return 0;  
}  
  
int a1(int i)  
{  
    for(i;i<=10;i++)  
        printf("%d\t",i*2-1);  
}
```

Q6:-

```
#include<stdio.h>  
  
int fac(int);  
  
int main()  
{  
    int num;
```

```

printf("Enter a number:\n");
scanf("%d",&num);
printf("Factorial of the given number is: %d",fac(num));
return 0;
}
int fac(int a)
{
    int i;
    for(i=a-1;i!=0;i--)
        a=a*i;
    return a;
}

```

Q7:-

```

#include<stdio.h>
int fact(int);
int main()
{
    int n,r,com;
    printf("Enter the value of n and r\n");
    scanf("%d %d",&n,&r);
    com=fact(n)/(fact(r)*fact(n-r));
    printf("The value of nCr is:- %d",com);
}

```

```
        return 0;
    }
    int fact(int num)
    {
        int i=1,f=num;
        while(i<num)
        {
            f=f*i;
            i++;
        }
        return f;
    }
```

Q8:-

```
#include<stdio.h>
int fact(int);
int main()
{
    int n,r,per;
    printf("Enter the value of n and r\n");
    scanf("%d %d",&n,&r);
    per=fact(n)/fact(n-r);
    printf("The value of nPr is:- %d",per);
}
```

```
        return 0;
    }
    int fact(int num)
    {
        int i=1,f=num;
        while(i<num)
        {
            f=f*i;
            i++;
        }
        return f;
    }
```

Q9:-

```
#include<stdio.h>
int l1(int,int);
int main()
{
    int x,y;
    printf("Enter two numbers:\n");
    scanf("%d %d",&x,&y);
    printf("LCM of the given numbers is:- %d",l1(x,y));
    return 0;
```

```
}  
int l1(int a,int b)  
{  
    int lcm;  
    for(lcm=2;lcm<=a*b;lcm++)  
        if(lcm%a==0 && lcm%b==0)  
            return lcm;  
}
```

Q10:-

```
#include<stdio.h>  
int h1(int,int);  
int main()  
{  
    int x,y;  
    printf("Enter two numbers:\n");  
    scanf("%d %d",&x,&y);  
    printf("HCF of the given numbers is:- %d",h1(x,y));  
    return 0;  
}  
int h1(int a,int b)  
{  
    int hcf;
```



```

    a<b?(hcf=a):(hcf=b);
    for(hcf;hcf!=0;hcf--)
        if(a%hcf==0 && b%hcf==0)
            return hcf;
}

```

Q11:-

```

#include<stdio.h>
#include<math.h>
int p1(int);
int p1(int x)
{
    int i,s;
    s=sqrt(x);
    for(i=2;i<=s;i++)
    {
        if(x%i==0)
            break;
    }
    if(i>s)
        return 1;
    else
        return 0;
}

```

```

}
int main()
{
    int num;
    printf("Enter a number:\n");
    scanf("%d",&num);
    if (1==p1(num));
    printf("Prime");
    else
    printf("Not a prime");
    return 0;
}

```

Q12:-

```

#include <stdio.h>
#include <math.h>
int p1(int);
int main()
{
    int num;
    printf("Enter a number :\n");
    scanf("%d",&num);
    printf("Next Prime number is %d",p1(num));
}

```

```
    return 0;
}
int p1(int x)
{
    int i;
    float s;
    for(x=x+1;;x++)
    {
        s=sqrt(x);
        for(i=2;i<=s;i++)
        {
            if(x%i==0)
                break;
        }
        if(i>s)
            return x;
    }
}
```

Q13:-

```
#include<stdio.h>
#include<math.h>
void prime(int);
```

```
int main()
{
    int num;
    printf("Enter a number:\n");
    scanf("%d",&num);
    prime(num);
    return 0;
}

void prime(int num)
{
    int i,p=2,s;
    while(num)
    {
        s=sqrt(p);
        for(i=2;i<=s;i++)
            if(p%i==0)
                break;
        if(i>s)
        {
            printf("%d\t",p);
            num--;
        }
    }
}
```

p++;

}

}