Q1

CODE

```cpp
#include<iostream>
#include<math.h>
using namespace std;
int main()
{
    float a, b, c, s, radius, area;
    int ch;
    cout<<"1.Area Of Circle";
    cout<<"\n2.Area Of Rectangle";
    cout<<"\n3.Area Of Triangle \n";
    cout<<"\nEnter our choice number: ";
    cin>>ch;
    switch(ch){
        case 1:
        {
            cout<<"\nEnter the Radius of Circle: ";
            cin>>radius;
            area=3.14159*radius*radius;
            cout<<"Area of Circle = "<<area<<endl;
            break;
        }
        case 2:
        {
            cout<<"\nEnter the Length and Breadth of Rectangle:";
            cin>>a>>b;
            area=a*b;
            cout<<"Area of Rectangle = "<<area<<endl;
            break;
        }
        case 3:
        {
            cout<<"\nEnter All Three Sides of Triangle with 3 Sides:";
            cin>>a>>b>>c;
            s=(a+b+c)/2;
            area=sqrt(s*(s-a)*(s-b)*(s-c));
            cout<<"Area of Triangle = "<<area<<endl;
            break;
        }
        default: cout<<"\n Invalid Choice Try Again...!!!";
            break;
        }
    return 0;
}
```

OUTPUT

```
PS D:\C++> cd "d:\C++\" ; if ($?) { g++ areafn.cpp -o areafn } ; if ($?) { .\areafn }
1.Area Of Circle
2.Area Of Rectangle
3.Area Of Triangle

Enter our choice number: 2

Enter the Length and Breadth of Rectangle:7 8
Area of Rectangle = 56
PS D:\C++>
```

Q2

CODE

```cpp
#include <iostream>
using namespace std;
int main() {
    int low, high, i;
    bool isPrime = true;
    cout << "Enter two numbers (intervals): ";
    cin >> low >> high;
    cout << "\nPrime numbers between " << low << " and " << high << " are: " <
< endl;
    while (low < high) {
        isPrime = true;
        if (low == 0 || low == 1) {
            isPrime = false;
        }
        else {
            for (i = 2; i <= low / 2; ++i) {
                if (low % i == 0) {
                    isPrime = false;
                    break;
                }
            }
        }
        if (isPrime)
            cout << low << " ";

        ++low;
    }
    return 0;
}
```

OUTPUT

```
PS D:\C++> cd "d:\C++\" ; if ($?) { g++ prime.cpp -o prime } ; if ($?) { .\prime }
Enter two numbers (intervals): 1 100

Prime numbers between 1 and 100 are:
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
PS D:\C++>
```

Q3

CODE

```cpp
#include <iostream>
using namespace std;
int sumofdigits(int);
int main()
{
  int n,s;
  cout<<"Input a number : " ;
  cin>>n;
  s=sumofdigits(n);
  cout <<"Sum of Digits of "<<n<<" is "<<s;
  return 0;
}

int sumofdigits(int n)
{
  int s=0,rem=0;
  while(n>0)
  {
    rem=n%10;
    s+=rem;
    n=n/10;
  }
  return s;
}
```

OUTPUT

```
PS D:\C++> cd "d:\C++\" ; if ($?) { g++ sumofdig.cpp -o sumofdig } ; if ($?) { .\sumofdig }
Input a number : 567
Sum of Digits of 567 is 18
PS D:\C++>
```

Q4

CODE

```cpp
#include<iostream>
using namespace std;
void lcm(int,int);
int main(){
    int a,b;
    cout<<"Enter 1st number: ";
    cin>>a;
    cout<<"\nEnter 2nd number: ";
    cin>>b;
    lcm(a,b);
    return 0;
}
void lcm(int a,int b){
    int m,n;
    m=a;
    n=b;
    while(m!=n)
    {
        if(m < n)
        {
        m=m+a;
        }
        else
        {
            n=n+b;
        }
    }
    cout<<"\nL.C.M of "<<a<<" and "<<b<<" is: "<<m<<"\n";
}
```

OUTPUT

```
PS D:\C++> cd "d:\C++\" ; if ($?) { g++ lcm.cpp -o lcm } ; if ($?) { .\lcm }
Enter 1st number: 7

Enter 2nd number: 4

L.C.M of 7 and 4 is: 28
PS D:\C++>
```