CHOUKSEY COLLEGE OF SCIENCE AND COMMERCE

BILASPUR, CHHATTISGARH

SESSION -> 2025-2026

ASSIGNMENT -> C++

Submitted to

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1. Write s C++ program to print “Hello World”.

Problem Statement:

q1.cpp

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;


int main(){

    cout<<"HELLO WORLD";
    return 0;
}
```

- **Output:**

```
HELLO WORLD
```

2.Write s C++ program to add two numbers.

Problem Statement:

```
#include <iostream>
using namespace std;


int main(){

    int x,y,sum;

    cout<<"Enter your first number  = ";
    cin>>x;

    cout<<"Enter your second number = ";
    cin>>y;

    sum = x+y;

    cout << "The sum of " << x << " and " << y << " is =  " << sum << endl;
    return 0;
}
```

➢ Outout:

```
Enter your first number  = 55
Enter your second number = 45
The sum of 55 and 45 is =  100
```

3. Write s C++ program to calculate simple interest.

Problem Statement :

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;


int main(){

    float principal, ratio , time, interset;

    cout<<"Enter the value of principal = ";
    cin>>principal;


    cout<<"Enter the value of ratio = ";
    cin>>ratio;


    cout <<"Enter the value of time =  ";
    cin>>time;


    interset = (principal*ratio*time)/100;

    cout << "The simple interest = "<<interset;
    return 0;
}
```

➢ Output:

```
Enter the value of principal = 2000
Enter the value of ratio = 7
Enter the value of time =  2
The simple interest = 280
```

4. Write s C++ program to convert temperature from Fahrenheit to Celsius.

Problem statement:

q1.cpp

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;


int main(){

    float  fahrenheit,celsius;

    cout<<"Enter the value of fahrenheit = ";
    cin>>fahrenheit;

    celsius = (5.0/9.0) *(fahrenheit-32);

    cout << "Temperature in Celsius = " << celsius << "C" << endl;
    return 0;
}
```

➢ Output:

```
Enter the value of fahrenheit = 113
Temperature in Celsius = 45C
```

5. Write s C++ program to find any given number is even or odd.

Problem statement:

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;


int main(){

    int x;

    cout<<"Enter a number  ";
    cin>>x;

    if(x/2==0)
    {
        cout<<"Is an even number ";
    }

    else{
        cout<<"Is an odd number ";
    }

    return 0;
}
```

➢ Output:

```
Enter a number =   44
Is an even number
PS C:\Users\HP\krish\.vscode>
Enter a number =   13
Is an odd number
```

6. Write s C++ program to find greatest number between three numbers.

Problem Statement:

q1.cpp

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;


int main(){

    int x,y,z;


    cout<<"Enter the value of x = ";
    cin>>x;

    cout<<"Enter the value of y = ";
    cin>>y;


    cout<<"Enter the value of z = ";
    cin>>z;
    if(x>y && x>z)
    {
        cout<<"x is greatest number ";
    }
    else if(y>x && y>z)
    {
        cout<<"y is greatest number ";

    }

    else {
        cout<<"z is greatest number ";
    }

    return 0;
}
```

➢ Output:

```
Enter the value of x = 85
Enter the value of y = 95
Enter the value of z = 70
y is greatest number
```

7. Write s C++ program to calculate factorial of any number using recursion.

Problem Statement:

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;


int factorial(int n)
{
    if(n<1)

        return 1;
    else
    return n*factorial(n-1);

}
int main()
{
    int num;
    cout<<"Enter a positive number = ";
    cin>>num;

    if(num<0)
    {
        cout<<"factorial is not defined for negative numbers."<<endl;
    }
    else{
        cout<<"factorial of "<<num<<" is ="<<factorial(num)<<endl;
    }
return 0;

}
```

➢ Output:

```
Enter a positive number = 6
factorial of 6 is =720
```

8. Write s C++ program to check any given number is prime or not.

Problem Statement:

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;

int main(){

    int num;

    cout<<"Enter a postive number = ";
    cin>>num;

    if(num<1)
    {
        cout<<"It is not a prime number. ";
    }

    for(int i=2; i<=num/2; i++)
    {
        if(num%i==0)
        {
            cout<<"it is not a prime number.";
            return 0;
        }
    }
    cout<<num<<" is a prime number ";
    return 0;
}
```

➢ Output:

Case 1->

```
Enter a postive number = 7
7 is a prime number
```

Case 2->

```
Enter a postive number = 16
it is not a prime number.
```

9. Write s C++ program to demonstrate the concept of static member and static function.

Problem Statement:

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;

class Student{
    private :
   static int count;

    public:

     Student(){
        count++;
    }
    static void showCount(){
        cout<<"Total students created = "<<count<<endl;
    }

};

    int Student::count=0;

    int main() {
    Student s1, s2;
    Student s3;


    Student::showCount();

    return 0;
}
```

➢ **Output:**

Case 1-> Total students created = 3

Case 2-> Total students created = 4

10. Write s C++ program to overload function to find area of three different shapes.

Problem Statement:

.vscode > q1.cpp

```cpp
#include <iostream>
using namespace std;

class Shape{
    public:

    double area(double length, double width){  //Area of rectangle
    return length * width;
    }

    double area(double radious ){      //Area of circle
        return 3.14 * radious *radious;
    }

    double area(double base,double height, double parameter){    //area of Triangle
        return 0.5 *base*height;
    }
};

int main(){

    Shape s;

    cout<<"Area of rectangle (5*10)  =" <<s.area(5,10)<<endl;
    cout<<"Area of circle (radius 8) = "<<s.area(8)<<endl;
    cout<<"Area of triangle (height= 14, base= 8)  = "<<s.area(8,14,0)<<endl;
    return 0;
}
```

➢ Output:

```
Area of rectangle (5*10)  =50
Area of circle (radius 8) = 200.96
Area of triangle (height= 14, base= 8)  = 56
```