**ASSIGNMENT – 1**

* + 1. **List the steps in the program development cycle.**

**Sol. -**

* Analyze the problem
* Design a solution
* Code the program
* Test the program
  + 1. **Write a C++ program that prints “Hello World” five times.**

**Sol.-** #include<iostream>

using namespace std;

int main()

{

cout<<”Hello World \n”;

cout<<”Hello World \n”;

cout<<”Hello World \n”;

cout<<”Hello World \n”;

cout<<”Hello World \n”;

return 0;

}

* + 1. **What will be the output of the following program?**

**#include<iostream>**

**using namespace std;**

**int main()**

**{**

**cout << “It’s a Small World After All!!”;**

**return 0;**

**}**

**Sol.-** Output: It’s a Small World After All!!”

* + 1. **Identify three errors in the following program: #include\_<iostream.h>**

**using namespace std;**

**int main…….**

**{**

**cout << “Hello World”……**

**return 0;**

**}**

**Sol.-** #include<iostream.h> // no space should be there b\w include and <iostream>

using namespace std;

int main**()** // brackets “()” with main

{

cout << “Hello World” **;** // use semicolon to terminate statement

return 0;

}

**1.2.1 Write a pair of statements that prompts for and inputs a user’s age.**

**Sol.-**

#include<iostream>

using namespace std;

int main()

{

int age; //declaration

cout<<"Type Your Age Here=";

cin>> age;

cout<<"\nUser's Age=";

cout<<age<<endl;

system("pause");

return 0;

}

**1.2.2 Write a C++ program that computes and displays the strike rate of a cricket player in a match when the user inputs the number of runs scored and number of balls faced. (Hint: StrikeRate = RunsScored / BallsFaced \* 100)**

**Sol.-**

#include<iostream>

using namespace std;

int main()

{

float a; //a=Number of run scored

float b; //b=Number of balls faced

cout<<"Run scored:";

cin>>a;

cout<<"\nBalls Faced:";

cin>>b;

float sr;

sr=(a/b)\*100;

cout<<"\nStrike Rate:"<<sr<<endl;

system("pause");

return 0;

}

**1.2.3 Write a C++ program to exchange the value of two variables without using a temporary variable. (Hint: Use arithmetic operations)**

**Sol.-**

#include<iostream>

using namespace std;

int main()

{

int a;//Declaration

int b;//Declaration

cout<<"Enter Two Numbers Here \n Number 1= ";

cin>>a;

cout<<"/n Number 2= ";

cin>>b;

a=a+b;

b=a-b;

a=a-b;

cout<<"The Numbers after Swapping are \n Number 1= "<<a<<"\n Number 2="<<b<<endl;

system("pause");

return 0;

}

**1.2.4 What will be the output of the following program: #include<iostream>**

**using namespace std;**

**int main()**

**{**

**int x = 10, y = 20;**

**cout << “ X = “ << x << endl;**

**cout << “ Y = “ << y << endl;**

**x = y; y = x;**

**cout << “ X = “ << x << endl;**

**cout << “ Y = “ << y << endl;**

**return 0;**

**}**

**Sol.-** **OUTPUT:** X=10

Y=20

X=20

Y=20

**1.2.5 Identify three errors in the following program fragment:**

**int main…….**

**{**

**int percent.. age;**

**int percentage;**

**int percentage = 100;**

**int num1 = 2, float num2 = 20; }**

**Sol.-**

int main() // “()” after main function

{

int percent\_age; // cannot use space in identifier name

int percentage;

int percentage = 100;

int num1 = 2, // cannot define two different types of

float num2 = 20; variables in single statement

}