EC2010-COMPUTER PROGRAMMING

LAB-02

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REGISTRATION NO. : 2022/E/065

DATE ASSIGNED : 03 OCT 2023

QUESTION 01

Part a

SOURCE CODE

```cpp
// RENUJAN J.
// 2022/E/065
// EC2010
// Group: B
// Lab: 02
// 2023.10.03
// Certificate of Authenticity:
// I certify that the code in the method function main of this project
// is entirely my own work.
// Question 01
// a)
#include <iostream>

using namespace std;

int main()
{
    cout << "Hello world!\nL\nets\nLe\na\nr\n\\nn" ;
    return 0;
}
```

CDM

```
Hello world!
L
ets
Le
a
r
\nn
Process returned 0 (0x0)   execution time : 0.109 s
Press any key to continue.
```

Part b

SOURCE CODE

```cpp
// Question 01
// b)
#include <iostream>

using namespace std;

int main()
{
    cout << "Welcome to the Programming!\n" ;
    cout << "It's going to be an interesting module."<<"\n" ;
    return 0;
}
```

CDM

```
Welcome to the Programming!
It's going to be an interesting module.

Process returned 0 (0x0)   execution time : 0.109 s
Press any key to continue.
```

Part c

SOURCE CODE

```cpp
// Question 01
// c)
#include <iostream>

using namespace std;

int main()
{
    double length = 10;
    cout << length++ << endl;
    cout << ++length;
    return 0;
}
```

CDM

```
10
12
Process returned 0 (0x0)   execution time : 0.125 s
Press any key to continue.
```

QUESTION 02

SOURCE CODE

```cpp
// RENUJAN J.
// 2022/E/065
// Certificate of Authenticity:
// I certify that the code in the method function main of this project
// is entirely my own work.
// Question 02

#include <iostream>

using namespace std;

int main()
{
    int num ;
    double inch, pound , mile ;
    cout << "1 inch  = 2.54 cm \n" ;
    cout << "1 pound = 0.453592 kg \n" ;
    cout << "1 mile  = 1.60934 km \n" ;

    cout << "\n1. Inches to Centimeters \n" ;
    cout << "2. Pounds to Kilograms \n" ;
    cout << "3. Miles to Kilometers \n" ;
    cout << "\nEnter your choice (1-3): " ;
    cin >> num ;

    if (num==1){
        cout << "Enter the Inches: " ;
        cin >> inch ;
        cout << "\n" << inch << " Inches = " << inch*2.54 << " Centimeters" << endl;
    }
    else if (num==2){
        cout << "Enter the pounds: " ;
        cin >> pound ;
        cout << "\n" << pound << " pounds = " << pound*0.453592 << " kilograms" << endl;
    }
    else if (num==3){
        cout << "Enter the mile: " ;
        cin >> mile ;
        cout << "\n" << mile << " miles = "  << mile*1.60934 << " kilometers" << endl;
    }

    return 0;
}
```

CDM_1

```
1 inch  = 2.54 cm
1 pound = 0.453592 kg
1 mile  = 1.60934 km

1. Inches to Centimeters
2. Pounds to Kilograms
3. Miles to Kilometers

Enter your choice (1-3): 1
Enter the Inches: 3

3 Inches = 7.62 Centimeters

Process returned 0 (0x0)   execution time : 2.908 s
Press any key to continue.
```

CDM_2

```
1 inch  = 2.54 cm
1 pound = 0.453592 kg
1 mile  = 1.60934 km

1. Inches to Centimeters
2. Pounds to Kilograms
3. Miles to Kilometers

Enter your choice (1-3): 2
Enter the pounds: 5

5 pounds = 2.26796 kilograms

Process returned 0 (0x0)   execution time : 3.484 s
Press any key to continue.
```

CDM_3

```
1 inch  = 2.54 cm
1 pound = 0.453592 kg
1 mile  = 1.60934 km

1. Inches to Centimeters
2. Pounds to Kilograms
3. Miles to Kilometers

Enter your choice (1-3): 3
Enter the mile: 7

7 miles = 11.2654 kilometers

Process returned 0 (0x0)   execution time : 9.950 s
Press any key to continue.
```

CDM_4

```
1 inch  = 2.54 cm
1 pound = 0.453592 kg
1 mile  = 1.60934 km

1. Inches to Centimeters
2. Pounds to Kilograms
3. Miles to Kilometers

Enter your choice (1-3): 2
Enter the pounds: 4

4 pounds = 1.81437 kilograms

Process returned 0 (0x0)   execution time : 14.792 s
Press any key to continue.
```

QUESTION 03

SOURCE CODE

```cpp
// RENUJAN J.
// 2022/E/065
// Certificate of Authenticity:
// I certify that the code in the method function main of this project
// is entirely my own work.
// Question 03

#include <iostream>
#include <cmath>

using namespace std;

int main()
{
    double radius, S, V, pi=3.14 ;

    cout << "Enter the radius of the Sphere: " ;
    cin >> radius ;

    S = 4*pi*pow(radius,2);
    V =  (4*pi*pow(radius,3))/3;

    cout << "Surface Area of the Sphere is = " << S << endl;
    cout << "Volume of the Sphere is = " << V << endl;

    return 0;
}
```

CDM

```
Enter the radius of the Sphere: 7
Surface Area of the Sphere is = 615.44
Volume of the Sphere is = 1436.03

Process returned 0 (0x0)   execution time : 1.675 s
Press any key to continue.
```