

IQRA NATIONAL UNIVERSITY
Department of Computer Science



Programming fundamentals

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Assignment: Final paper

Question : 1

A)Write a C++ program to get two integer values from the keyboard and store them in variables N1 and N2 and then exchange the values of stored N1 and N2.

Ans)

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int x = 4, y = 8, temp;
```

```
    cout << "Before swapping." << endl;
```

```
    cout << "x = " << x << ", y = " << y << endl;
```

```
    temp = x;
```

```
    x = y;
```

```
    y = temp;
```

```
    cout << "\nAfter swapping." << endl;
```

```
    cout << "x = " << x << ", y = " << y << endl;
```

```
    return 0;
```

```
}
```

B)Write a C++ program to find the SUM and Average of the following numbers.
5,15,25,100

Ans)

```
#include<iostream>

using namespace std;

int main()
{
    float num1, num2, num3, num4;

    float sum, average;

    cout << "Enter four Numbers:";

    cin >> num1 >> num2 >> num3 >> num4 ;

    sum = num1 + num2 + num3 + num4 ;

    average = 145 / 4;

    cout << "Sum = " << sum << " Average = " << average << endl;

    return 0;
}
```

OUTPUT:

Sum = 145

Average = 36 . 25

Question : 2

A)Write a C++ program to get radius value from the keyboard and store it in variable R and then find the Area of a circle using the below formula:

AREA=3.14159(R)@

Ans)

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

int main(){

    int r;
    int a;
    cout << "Enter R: ";
    cin >> r;
    a=3.14(r)(r);
    Cout<<a;
}
```

B)Write a C++ program to get an integer value from the keyboard and store it in a variable N and then compute and display the SQUARE, SQUARE ROOT and CUBE of the given value N.

Ans)

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

int main(){

    float n,sq;
    cout << "enter value: ";
    cin >> n;
```

```

sq=sqrt(n);
cout<< "Squre "<< n*n <<" squire root "<< sq << " cube "<<n*n*n ;
    }

```

Question : 3

A)Write a C++ program to get a radius value for a sphere from the keyboard and store it in a variable r and then find the Surface Area and Volume of the sphere using the below formulas:

Surface Area= $4\pi r^2$

Volume= $\frac{4}{3}\pi r^3$

Where $\pi = 3.14159$

Ans)

```

#include <iostream>
using namespace std;

```

```

int main(){

    int r;
    int sA;
    int v;

    cout << "Enter R: ";

    cin>> r;

    a=4*3.14*r*r;

    Cout<<"surface area"<<a;

    v=4*3.14*r*r/3

}

```

B)Write a C++ program to calculate and display on screen the Product, Quotient and the Remainder of the two integers, 830 and 15.

Ans)

```
#include <iostream>
```

```
using namespace std;
```

```
int main(){
```

```
    int x=830,
```

```
        int y=15;
```

```
    cout << "The product : "<<x*y;
```

```
    cout << "The qoutient of the two integers is: "<<x/y;
```

```
    cout << "The remainder of the two integers is: "<<x%y;}
```