

**Name : Ramiz aslam**

**cms : 454142**

## **Fop assigment #1**

### **Task 1:**

```
#include <iostream>
using namespace std;
int main()

{
    int a;
    cout << "Enter a number=";
    cin>>a;
    cout<<"The factors of the given number are : " ;

    for (int k = 1; k <= a; k++) {
        if (a%k==0) {
            cout<<k<<endl;
        }
    }
    return 0;
}
```

### **Task 2:**

output is = x is 5 and y is 10

### Task 3:

```
#include <iostream>
using namespace std;
int main()
{
    int a;
    cout<<"Enter number = ";
    cin>>a;
    if (a>10 && a<=20)
    {
        cout<<"1";
    }
    else
    {
        cout<<"0";
    }
    return 0;
}
```

### Task 4:

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

int main()
{
    int num, a,b,fact ;
    cout<<"Enter number= ";
    cin>>num;
    a = num;
    while (a>=2)
    {
        fact = 0;
```

```

b=1;
while (b<=a) {
    if (a%b==0) {
        fact++; }
    b++;
}
if (fact==2) {
    cout<<"The highest prime number less than the given number is: "<<a;
    break;
}
a--;
}
return 0;
}

```

### Task 5:

```

#include <iostream>
#include <string>
using namespace std;
int main()
{
    string s1,s2,rotate;
    rotate="";
    cout<<"Enter first string=";
    cin>>s1;
    cout<<"Enter second string=";
    cin>>s2;
    if (s1==s2)
    {
        for (int a=0;a<s1.length();a++){
            rotate=s1[a] + rotate;
        }
        cout<<"Strings are unequal. Rotated string is : ";
        cout<<rotate;
    }
    else {
        cout<<"Strings are unequal";
    }
}
return 0;

```

```
}
```

## Task 6:

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

int main()
{
    int did, dis, rem, quo;
    cout<<"Enter the value of divisor: ";
    cin>>dis;
    cout<<"Enter the value of dividend: ";
    cin>>did;

    rem = did;

    for (int k= 1; k <= did; k++) {
        rem -= dis;

        if (rem < dis) {
            quo = k;
            break;
        }
    }

    cout<<did<<" / "<<dis<<" = "<<quo;
    return 0;
}
```

## Task 7 :

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

int main()
{
    string str, ans;
    bool letter;
```

```

cout<<"Enter String= ";
cin>>str;
ans = "";

for (int k = 0; k < str.length(); k++) {
    letter = false;
    for (int l = 0; l < ans.length(); ++l) {
        if ( string[k] == ans[l] ) {
            letter = true;
        }
    }

    if (letter == false) {
        ans += str[k];
    }
}

cout<<"Changed String: "<<ans;
return 0;}

```

## Task 8;

```

#include <iostream>
using namespace std;

int main()
{
    int arr[5] = {1,2,3,4,5},newArr[10];
    cout<<"Previous array= {";
    for (int k = 0; k<5; k++) {
        cout<<arr[k];
        if (k==4)
            continue;
        cout<<", ";
    }
    cout<<"}"<<endl;

    for (int k = 0; k<5; k++) {
        newArr[k] = arr[k];
    }

    cout<<"Enter 5 digits to add to previous array= "<<endl;
}

```

```

for (int k = 5; k<10; k++)
    cin>>newArr[k];

cout<<"New array be = "<<endl;
for (int k = 0; k<10; k++) {
    cout<<newArr[k]<<" ";
}
return 0;
}

```

### task 9:

```

#include <iostream>
using namespace std;

int main()
{
    int arr[5], A, ans , a, b, c;

    bool result = false;
    cout<<"Enter a value of integer X: ";
    cin>>A;

    cout<<"Enter integers for array: "<<endl;
    for (int a = 0; a<5; a++) {
        cin>>arr[a];
    }

    cout<<"Triplets that sum up numbers are = ";
    for ( a = 0; a<5; a++) {
        for ( b = 0; b<5; b++) {
            if (a==b)
                continue;

            for ( c = 0; c<5; c++) {
                if (c == a || c == b)
                    continue;

                ans = arr[a] + arr[b] + arr[c];
                if (ans == A) {
                    cout<<" ("<<arr[a]<<","<<arr[b]<<","<<arr[c]<<")";
                    result = true; }
            }
        }
    }
}

```

```

    if (result == false) {
        cout<<" 0";
    }
    return 0;
}

```

## Task 10:

```

#include <iostream>
using namespace std;

int main() {
#define z 6
int arr[z], i,j,a;
    for(i=0;i<z;i++)
    {
        cout<<"Enter the values of array: "<<endl;
        cin>>arr[i];    }

    for(i = 0; i < z-1; i++) {

        for(j = 0; j < z-1-i; j++) {

            if(arr[j] > arr[j+1]) {
                a = arr[j];
                arr[j] = arr[j+1];
                arr[j+1] = a;}

        } }
    cout<<"After sorting , the array becomes :"<<endl;

    for(i = 0; i < z; i++) {
        cout << arr[i] << " ";
    }

    return 0;
}

```