TCS NQT- Coding Practice (Recommended Questions)

1. Jar Of candies :- https://prepinsta.com/tcs-coding-questions/jar-of-candies/
2. Oxygen Level :- https://prepinsta.com/tcs-coding-questions/oxygen-level/
3. Washing Machine Fuzzy System :- https://prepinsta.com/tcs-coding-questions/washing-machine-fuzzy-system/
4. Caesar Cipher coding question :- https://prepinsta.com/caesar-cipher-coding-question/
5. Poetry painting coding question :- https://prepinsta.com/tcs-coding-questions/property-painting-coding-question/
6. Ring Route Coding Question :- https://prepinsta.com/tcs-coding-questions/ring-route-coding-question/
7. Monkey on a tree coding Question :- https://prepinsta.com/tcs-coding-questions/monkeys-on-a-tree-coding-question/
8. Chain marketing coding question :- https://prepinsta.com/tcs-coding-questions/chain-marketing-coding-question/
9. Fully automatic Vending machine :- https://prepinsta.com/tcs-coding-questions/fully-automatic-vending-machine/
10. String with a twist :- https://prepinsta.com/tcs-coding-1-the-program-will-recieve-3-english-words-inputs-from-stdin-these-three-words-will-be-read-one-at-a-time-in-three-separate-line/

Other Programs :-

Prime Numbers with a Twist

Ques. Write a code to check whether no is prime or not. Condition use function check() to find whether entered no is positive or negative ,if negative then enter the no, And if yes pas no as a parameter to prime() and check whether no is prime or not?

- **Whether the number is positive or not, if it is negative then print the message "please enter the positive number"**
- **It is positive then call the function prime and check whether the take positive number is prime or not.**

Solution :-

```
//C++ Program
//Prime Number
#include
using namespace std;
```

```
//function declaration
void enter();
void check(int);
void prime(int);
//main program
int main()
{
enter();
return 0;

}
//function to enter value
void enter()
{
int num;
cout<<"Enter number:";
cin>>num;
check(num);
}
//function to check whether the input is positive or negative
void check(int num)
{
if(num<0)
{
cout<<"invalid input enter value again"<<endl;
enter();
}
else
{
prime(num);
}
}
//function to check for prime number
void prime(int num)
{
int i,div=0;
for(i=1;i<=num;i++)
{
if(num%i==0)
{
div++;
}
}
//prime number only have two divisors
if(div==2)
{
cout<<num<<" is a prime number";
}
//not a prime number
else
{
cout<}

Output:
```

```
Enter number:29

29 is a prime number.
```

Number Series with a Twist – 1

Ques :- Find the 15th term of the series?

0,0,7,6,14,12,21,18, 28

Explanation : In this series the odd term is increment of 7 {0, 7, 14, 21, 28, 35 – – – – – – }

And even term is a increment of 6 {0, 6, 12, 18, 24, 30 – – – – – – }

```
//C++ Program
#include
using namespace std;
int main()
{
        //initialising variables
        int n,d;
        cout<<"Enter the position: ";
        //user input
        cin>>n;
        //logic to find nth element of the series
        if(n==1||n==2)
        {
                        cout<<0;
                        return 0;
        }
        else if(n%2==0)
        {
                n=n/2;
                d=6;
        }
        else
        {
                n=n/2+1;
                d=7;
        }
        //logic ends here
        //printing output
        cout<<(n-1)*d;
        return 0;
}
```

Ques :- Addition of two numbers a Twist

1. Using a method, pass two variables and find the sum of two numbers.

Test case:

Number 1 – 20

Number 2 – 20.38

Sum = 40.38

There were a total of 4 test cases. Once you compile 3 of them will be shown to you and 1 will be a hidden one. You have to display error message if numbers are not numeric.

```
//C++ Program
//Sum of two numbers using function
#include<stdio.h>
using namespace std;
//function to add two numbers
float sum(int a, float b)
{
        return (float)(a+b);
}
//main program
int main()
{
        //initialising variables
        int a;
        float b;
        cout<<"Enter two numbers";
        //user input
        cin>>a;
        cin>>b;
        //call function to find sum
        cout<<"Sum of "<<a<<" and "<<b<<" is "<<sum(a,b);
        return 0;
}
```