

**Subject: C++ programming**

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**Course: BCA**

**Year: 2018-2021**

**NDIIT**

***Assignment***

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**Q1 /\* C++ program to print Fibonacci series upto N terms \*/**

#include <iostream>

using namespace std;

int main()

{

int a=0,b=1,c,i,no;

cout<<"Enter the number of elements: ";

cin>>no;

cout<<a<<" "<<b<<" "; //printing 0 and 1

for(i=2;i<no;++i) printed

{

c=a+b;

cout<<c<<" ";

a=b;

b=c;

}

return 0;

}

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**Q2. Write a C++ program to sort the strings in alphabetical order.**

#include<iostream>

#include<string.h>

#include<stdio.h>

using namespace std;

int main()

{

char str[5][20], t[20];

int i, j;

cout<<"\n Enter Any Five Names : \n\n";

for(i=0; i<5; i++)

{

cout<<" ";

cin>>str[i];

}

for(i=1; i<5; i++)

{

for(j=1; j<5; j++)

{

if(strcmp(str[j-1], str[j])>0)

{

strcpy(t, str[j-1]);

strcpy(str[j-1], str[j]);

strcpy(str[j], t);

}

}

}

cout<<"\n Names Sorted in Alphabetical Order : \n";

for(i=0; i<5; i++)

{

cout<<" ";

cout<<str[i]<<"\n";

}

return 0;

}

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**Q3 /\* C++ program to determine the color of chess square**

**A chess board is equally divided into 64 identical squares that are black and white**

**alternately. Each square on the chessboard can be identified by the coordinates as 'A' to**

**'H' on the horizontal axis and '1' to '8' on the vertical axis as shown in the figure.**

**\*/**

#include<string>

#include<stdio.h>

using namespace std;

int main()

{

char Alphabet[10], x;

int count = 0;

cout<<"Enter the coordinates of the square"<<endl;

cin>> x ;

cout<<" Enter th alphabet of square "<<endl;

cin>> Alphabet[10];

if( x%2 == 0){

if( Alphabet[10] == 'a' || Alphabet[10] == 'c' || Alphabet[10] == 'e' || Alphabet[10] == 'g' )

{

cout<<" White square "<<endl;

}

else{

cout<<" Black Square "<<endl;

}

}

else{

if( Alphabet[10] == 'a' || Alphabet[10] == 'c' || Alphabet[10] == 'e' || Alphabet[10] == 'g' )

{

cout<<" Black Square "<<endl;

}

else

{

cout<<" White square "<<endl;

}

}

return 0;

}

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**Q4) C++ program to print all the Repeated Numbers with Frequency in an Array**

#include<bits/stdc++.h>

using namespace std;

int main()

{

int i,j,n,count;

// 'n' will contain the no. of elements.

cout<<"Enter no. of elements:";

cin>>n;

int set[n];

cout<<"\nEnter the elements:";

for(i=0; i<n; i++)

{

cin>>set[i];

}

int flag[n]={0};

// Here, we have initialized all

// the blocks of the 'flag' array

// with 0.

cout<<"\nRepeated Numbers with their frequency:";

for(i=0; i<n; i++)

{

count=0;

if(flag[i]!=1)

// if element set[i] is not

// considered for counting the

// frequency of a repeated number

{

for(j=0; j<n; j++)

{

if(set[i]==set[j])

{

count++;

flag[j]=1;

// set flag[j] to 1, to avoid

// more than 1 entry of repeated

// number in the output

}

}

if(count>1)

// if no. of occurrences of element

// set[i] > 1 (or if the element

// set[i] is repeate number)

{

cout<<"\n"<<set[i]<<" -> "<<count;

}

}

}

return 0;

}

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**Q5 Representing System of Linear Equations using Matrix**

#include<iostream>

#include<conio.h>

using namespace std;

int main(void)

{

char var[] = { 'x', 'y', 'z', 'w' };

cout << "Enter the number of variables in the equations: ";

int n;

cin >> n;

cout << "\nEnter the coefficients of each variable for each equations";

cout << "\nax + by + cz + ... = d";

int mat[n][n];

int constants[n][1];

for (int i = 0; i < n; i++)

{

for (int j = 0; j < n; j++)

{

cin >> mat[i][j];

}

cin >> constants[i][0];

}

cout << "Matrix representation is: ";

for (int i = 0; i < n; i++)

{

for (int j = 0; j < n; j++)

{

cout << " " << mat[i][j];

}

cout << " " << var[i];

cout << " = " << constants[i][0];

cout << "\n";

}

return 0;

}

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**Q6 Q1 /\* "Program to find the largest list of prime number**

**if you are using linked list for storing the prime number**

**follow the giver comment" \*/**

#include<iostream.h>

#include<conio.h>

int main()

{

clrscr();

cout<<"

int no ,x=2 , y=3;

cout<<"Enter the no to find the largest of prime no";

cin>>no;

cout<<"largest list of prime no is : "<<endl;

while(number>1){

if(number%x==0){

cout<<x<<" ";

number = number-x;

}

}

else{

cout<<y<<" ";

number =number-y;

}

return 0;

getch();

}

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