Sub 1:-

// F.N // 2/9/23

+70-Ist class, 60-70-IInd, 50-60-3rd, 45-50-4th

below 45 - fail.

Honours -80, 70-80-Ist, 50-60-2nd below 50-fail

sub 1:- Tel, sub 2:- Hindi, sub 3:- Eng, Sub 4:-mat

sub 5:- science.

Ans:-

```
int main()
~~for (int i=0, i<=5; i++);~~        int n1, n2; n3, n4, n5;
  {
     printf ("enter the sub 1 marks:");
     Scanf ("%d:", &n1);
     printf ("enter the sub 2 marks:");
     Scanf ("%d", &n2);
     printf ("enter the Sub 3 marks:");
     Scanf ("%d", &n3);
     printf ("ente the sub 4 marks:");
     Scanf ("%d", &n4);
     printf ("ente the sub 5 marks:");
     Scanf ("%d", &n5);
```

If statements :-

Syntax :-

```
If (condition)
{
    //statements to execute
}
    // condition is true
}
```

Ex :-

```
# include <stdio.h>
int main ( )
{
    int i=10;
    if (i>15)
    {
        printf ("10 is greate than 15");
    }
    printf ("I an Not in if");
}.
```

```
# include <iostream
using namespace std;
int main ( )
{
    int i=10;
    if (i>15)
    {
        Count <<"10 is great than 15
    }
cout <<"I an Not in if";
}.
```

If else - statemet

Syntax :- if (condition)

```
{ //execute this block
if a condition is true
}
```

```
else
{
  //execute the block
}
  // condition is false
}.

int main()
{ int i=20;
  if (i<15)
  {
   printf("i is smaller than 15");
  }
  else.
  {
   printf("i is greater than 15");
  }
  return 0;
}.
```

```
# include <iostream>
using namespace std;
int main ()
{ int i=20;
if (i<15)
cout<<"i is smaller than 15"
else
  cout<<"i is greater than 15
return 0;
}.
```

Nested if-else.

syntax: if (condition)

```
{
  //execute when condition is true
  if (condition 2)
  {
    //executes when condition2 is true
  }else
```

```
{ //execute when condition is false.

}
# include <stdio.h>.
int main ()
{ int i= 10;
  if (i= = 10)
  { // first if statement
    if (i<15)
      printf("i is smaller than 15\n");

    if (i<12)
      printf("i is smaller than 12\n");
    else
      printf("i is greater than 15");
  }
  return 0;
}
```

~~int~~

```
# include <iostream>.
using namespace std;
int main ()
{ int i =10;
  if (i = =10)
  { // First if statement.
    if (i<15)
      cout<<"i is smaller than 15\n";

    if (i<12)
      cout <<"i is smaller than 12\n";
    else
      cout <<"i is greater than 15";
  }
  return 0;
}
```

if else if ladder ~~-tri~~

Syntax: if (condition)

```
    statement;
else if (condition)
    statement;
  :
else
    statement
```

```
# include <stdio.h>
int main ()
{
  int i=20;
if (i==10)
   printf("i is 10");
 else if (i==15)
    printf("i is 15");
 else if (i==20)
     printf ("i is 20");
 else
  printf("i is not present");

}
```

```
#include <iostream>
using namespace std;
int main()
{ int i=20;
if (i==10)
  cout<<"i is 10";
else if (i==15)
   cout<< "i is 15";
else if (i==20)
  cout<<"i is 20";
else
  cout<<"i is not present";
}.
```

Switch statement

syntax

```
Switch (expression){
    case value 1:
         statements;
    case value 2:
         statement;
    ....
    ....
    default:
         statements;
}
```

Ex:-

```
#include <stdio.h>
int main()
int val =2;
switch (val){
case 1:
```

```
#include <iostream>
using namespace std;
int main()
{
  int val=2;
  switch (val){
  case 1:
   cout <<case 1 is excecut
   break;
  case 2:
   cout << "case 2 is executed";
   break.
  default:
   ~~print~~
   cout << "default is Execut
   break;
printf ("case 1 is executed");
   break;
case 2;
   printf("case 2 is executed");
   break;
default:
   printf("default cas is executed");
   break;
}
return 0;
}.
```

```
} return 0;
}.
```

conditional operator :

Syntax: (condition)?
[true-statements]:
[false-statements];

```
#include <stdio.h>
int main()
{ int val;
  int flag =0;
  val = flag==0 ? 25 : -25;
  printf("value of val when flag is 0:
                          %d\n",val);
  flag =1;
  val=flag==0 ? 25:-25,
  printf("value of val when flag is Not
                          0: %d",val);
  return 0;
}
```

```
#include <iostream>
using namespace std;
int main ()
{
  int val;
  int flag =0;
  val=flag==0? 25: -25;
  cout << "value of val when flag is
                 0: "<< val<<endl;
  flag=1;
  val=flag==0 ?25; -25;
  cout<<"value of val when flag is
                 Not 0:"<<val;
  return 0;
}
```

Jump Statemens

A) break

Syntax

```
  break;
```

```
# include <stdio.h>

void find element (int arr[], int sz, int key)
{
  for (int i=0; i<sz; i++)
{
   if (arr[i]==key)
   {printf("element found at position: %d",
          (i+1));
      break;
   }
 }.
main()
int arr[]= {1,2,3,4,5,6}
int n=6
int key =3;
find element (arr, n, key);
return 0;
```

```
#include <iostream>
using namespace std;
void find Element(int arr[], in
                  size, int key
{
  for (int i=0; i<size; i++) {
    if (arr[i]==key) {
      cout <<"element found at po
          <<(i+1);
    }
  }
}.
int main( )
{ int arr[] = {1,2,3,4,5,6};
  int n=6
  int key=3
  findElement (arr,n,key);
  return 0;
}
```

B) ~~Bre~~ continue

Syntax :-

```
continue;
#include <stdio.h>
int main()
{
for (int i=1; i<=10; i++)
{
  if (i==6)
      continue;
  else
      printf("%d", i);
}
return 0;
}
```

```
#include <iostream>
using namespace std;
int main()
{
for (int i=1; i<=10; i++)
{
  if (i==6)
  ~~cout~~ continue;
  else
  cout << i << " ";
}
return 0;
}
```

goto :-

Syntax goto :-

Syntax 1	Syntax 2.
goto label;	label:
,	:
,	:
label;	goto
Label;	

```
#include <stdio.h>
int main()
{ int n=1;
label printf("%d", n);
      n++;
      if (n<=10)
```

```
#include <iostream>
using namespace std;
{   int n=1;
lable ;
    cout <<n<< " ";
    n++;
    if (n<=10)
       goto label;
}
int main ()
{ print Number ();
```

```
    goto label;
}
int main ( )
{
    print Numble ( );
    return 0;
}
```

```
        return 0;
    }
```

D) Return

Syntax:

```
return [expression]:
#include <stdio.h>.
int SUM (int a, int b)
{ int S1=a+b;
  return S1;
}
void print (int S2)
{ printf ("the sum is %d", S2);
  return;
}
int main ()
{
  int num1=10;
  int num2= 10;
  int sum-y =sum (num1,num2)
  print (sum-y );
  return 0;
}
```

```
#include <iostream>
using namespace std;
void print Number ()
{ int n=1;
label;
  cout <<n<<" ";
  n++;
  if (n <=10)
     goto label;
}
int main ()
{
  print number ();
  return 0;
}
```

Keywords :- (c)

auto break const

case char continue

default do double

else enum extern

float for goto

if int long

register return short

signed sizeof static

struct switch static

struct unsigned void

volatile while

→ Adding two numbers.

→ Swap two numbers.

→ largest among 3 numbers

→ find even (or) odd

Find the sum of all the natural numbers from 1 to n

1).Pg; Adding two numbers

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

  {
     int num1, num2, sum ;
     cout << "enter two num:" ;
      cin >> num1 >> num2;
      sum = num1 + num2;
      cout <<num1<< "+" num2<<"=" << sum;

  }.
```

2.) Swapping of two numbers

```
 #include <iostream>
using name space std;
   int main()
  {
     int a, b, temp;
Cout << "befor swapping" <<endl;
Cout  << "a=" <<a<<", b=" <<b<< endl;
 temp =a;
 a= b;
 b= temp;

 Cout << "after swapping" <<endl;
 Cout << "a=" <<a<<", b=" <<b<< endl;
 return 0;
}
```

largst among 3 numbrs

```
#include ~~<iostream~~ <iostream>
  using namespace std;
  int main ()
 {
  int n1, n2, n3;
 Cout << "enter three num:";
 cin >>n1>>n2>>n3;
 if (n1> =n2 && n1 >=n3)
     Cout << "largest num: " <<n1"
 else if (n2 >>=n1&& n2 >>n3)
     Cout << "largest num: " <<n2"
```

```
else
cout <<" largest num is " <<n3;
return 0;
```

Sum of all natural numbers

prg:

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

int n, s=0;
 cout << " enter num: ";
  cin >>n;
 for (int i=1; i<=n ;i++) {
        s+=i;
    }
   cout << " sum = <<s;
 }
```

odd (or) even;

```
# include <iosteam>
usng namespace std;
  int main ( ) {
   int a;
  cout << " enter integer";
   Cin >>a
 if   (a%2 = =0){
 cout << " given num is even";}
 else
 cout << " given num is odd";}
}
```

→ prg to find factrial of a given number. A.N

→ Display fibinocci series.

→ reverse a number

→ checking prime num (or) not

→ multiply two num

prg to factrial of given num :

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

int main ()
{
  int n;
   long factrial = 1
   cout << " enter the number >>
   cin >>n ;
  if (n <0)
      cout << " erro ! factrial of a negative num doesnt exist";
  else {
     for (int i=1; i< =n; i++)
          factrial *= i;
     }
     cout<< "factorial of "<<n <<"=" << factrial;
  }
   return 0;
}.
```

fibinocci seris :

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

 int fibnocci (int n)

 {

   if (n = =0)
    return 0;
   else if (n==1)
    return 1;
   else
    return (fibonacci(n-1)+ fibonacci(n-2));
 }

 int main(){
   int n;

   cout<<" enter the number of terms: ";

   cin >>n;

   cout << "fibonacci series: ";

   for (int i=0; i<n; i++){
    cout <<fibonacci(i)<<" ";
    }
    return 0;

}
```

Revers a number :-

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

{
  ~~int revers num (int num) {~~
  int n, reversed_number = 0, reminders;
  cout << "enter an integer : ";
  cin >> n;
  while (n ! = 0) {
         remainder = n % 10;
         reversed_number = reversed_number * 10 + remainder;
         n /= 10;
  }
   cout << "reversed number = " << reversed_number;
  return 0;
}.
```

Prime (or) not :-

```
#include <iostream>
using namespace std;
int main ()
{
    int n
    if (n <=1) {
            return false;
     }
    for (int i = 2; i <= sqrt(n); i++) {
        if (n % i = = 0) {
            return false;
        }
    }
    return true
}
int main (){
    int n;
    cout << " enter a positive number : ";

    cin >> n;
    if   (is prime (n) ) {
        cout <<n << " is a prime number : ";}
els {
    cout <<n <<" is not a prime number";
}
return 0;

}
```

multiplication of two numbers :

```
#include <iostream>
using namespace std;
int main () {
    int num1, num2, product;
    cout <<" enter the numbers :";
    cin >> num1 >> num2;
    product = num1 + num2;
    cout <<" product = " <<product;
    return 0;

}
```

function ~~too~~ to find a length of string in c++

```
#include <iostream>.
#include <string>
 using namespace std;
 int main() {
   string str = "Hellow, world";
   int length = str.length();
   Cout << "The length of the string is:" << length;
   return 0;
}
```