

BEST OF LUCK RUDRAX STUDENT

C Language

❖ C Program Structure

```
#include <stdio.h>

void main()
{
    printf("Hello world");
}
```

Out put

Hello world

❖ C DATA TYPES

```
#include <stdio.h>

void main() {

    int a=10;

    float b=1.22;

    char c='R';

    double d=14.55;

    printf("\n Value of int :%d",a);

    printf("\n Value of int :%0.2f",b);

    printf("\n Value of int :%c",c);

    printf("\n Value of int :%0.2lf",d);

}
```

Out put

Value of int : 10

Value of int : 1.22

Value of int : R

Value of int : 14.55

❖ C variables

```
#include <stdio.h>

void main() {

    int a,b;

    a=10;
    b=20;

    printf("\n Value of int :%d",a);
    printf("\n Value of int :%d",b);

}
```

Out put :

Value of int :10

Value of int :20

❖ C Constants And Literals

```
#include <stdio.h>

void main() {

    const int A = 10;

    const int B = 5;

    int area;

    area = A * B;

    printf("value of area : %d", area);

}
```

Out put :

value of area : 50

❖ C Operators

```
#include <stdio.h>

void main() {

    int A = 10;

    int B = 5;

    int sum,sub,mul;

    float div;

    sum=A+B;

    sub=A-B;
```

```
mul=A*B;
```

```
div=A/B;
```

```
printf("\n value of sum : %d",sum);
```

```
printf("\n value of sub : %d",sub);
```

```
printf("\n value of mul : %d",mul);
```

```
printf("\n value of div : %0.2f",div);
```

```
}
```

Out put :

value of sum : 15

value of sub : 5

value of mul : 50

value of div : 2.00

NOTE :- Program 2 :

```
#include <stdio.h>
```

```
void main() {
```

```
    int A = 10;
```

```
    int B = 5;
```

```
    if(A>B)
```

```
    {
```

```
        printf(" A is max");
```

```
    }
```

```
    else
```

```
    {
```

```
        printf(" B is max");
```

```
    }
```

```
}
```

Out put :

A is ma

❖ Decision Marking in c

i) IF..else Statement

```
#include <stdio.h>
```

```
void main() {
```

```
    int A = 150;
```

```
    if(200>A)
```

```
    {
```

```
        printf(" Program ");
```

```
    }
```

```
    else
```

```
    {
```

```
        printf(" Rudrax ");
```

```
    }
```

```
}
```

Out put :

Program

ii). The if..else if ...else Statrment

```
#include <stdio.h>
```

```
void main() {
```

```
int A=10;
int B=12;
int C=54;

if(A>B && A>C)

{
    printf(" A is max");

}
else if(B>C)
{
    printf("B is max");

}
else
{
    printf(" C is max ");

}

}
```

Out put :
C is Max

Switch Statement

```
#include <stdio.h>
```

```
void main() {
```

```
int A;
```

```
printf("ENTER Switch:");
```

```
scanf("%d",&A);
```

```
switch(A)
```

```
{
```

```
case 2:
```

```
{
```

```
int A=10;
```

```
int B=12;
```

```
if(A>B)
```

```
{
```

```
printf(" A is max");
```

```
}
```

```
else
```

```
{
```

```
printf(" B is max ");
```

```
}
```

```
break;
```

```
}
```

```
case 3:
```

```
{
```

```
int A=10;
```

```
int B=12;
```

```
int C=54;
```

```
if(A>B && A>C)
```

```
{
```

```
printf(" A is max");
```

```
}  
else if(B>C)  
{  
    printf("B is max");  
}  
else  
{  
    printf(" C is max ");  
}
```

```
break;
```

```
}
```

```
case 4:
```

```
{  
    int A=10;  
    int B=55;  
    int C=54;  
    int D=32;  
  
    if(A>B && A>C && A>D)  
    {  
        printf(" A is max");  
    }  
    else if(B>C && B>D)  
    {  
        printf("B is max");  
    }  
    else if(C>D)  
    {  
        printf(" C is max ");  
    }
```



```

        }
        else
        {
            printf("D is max");
        }
        break;
    }

    default:
    {
        printf("TRY AGAIN");

    }

    break;
}

}

```

Out out

ENTER Switch:3

C is max

Nested if Statements

```
#include <stdio.h>
```

```
void main() {
```

```
    int a=10;
```

```
    int b=20;
```

```
    if(20>a)
```

```

        {
            if(30>b)
            {
                printf("B is min");
            }
        }
    }
}

```

Out put

B is min

❖ C LOOP

i). WHILE LOOP[

```

#include <stdio.h>

void main()
{
    int a,i=0,c=1;
    printf("Enter number:");
    scanf("%d",&a);

    while(i!=a)
    {
        i++;
        printf("RITUL\n");
    }
}

```

Out put

Enter number : 5

Ritul

Ritul

Ritul

Ritul

Ritul

ii). FOR LOOP

```
#include <stdio.h>
```

```
Void main()
```

```
{  
    int a,i,c=1;  
    printf("Enter number:");  
    scanf("%d",&a);  
  
    for(i=1;i<=a;i++)  
    {  
        c=c*i;  
    }  
    printf("MUL:%d",c);  
}
```

Out put

Enter number: 5

MUL : 120

❖ Fungtion

```
#include<stdio.h>  
void min()  
{  
    int a,b,c;  
    printf("Enter A:");  
    scanf("%d",&a);  
    printf("Enter B:");  
    scanf("%d",&b);  
    printf("Enter C:");  
    scanf("%d",&c);  
  
    if(a<b&&a<c)  
    {  
        printf("\tA is min");  
    }  
    else if (b<c)  
    {  
        printf("\tB is min");  
    }  
    else  
    {  
        printf("\tC is min");  
    }  
}
```

```

    }
}
void main ()
{
    min();
}

```

Out put
10
22
44

A is min

❖ ARRAY

```

#include<stdio.h>
void main ()
{
    int  a[50],max,i,j,t;

    max=a[0];
    for(i=0;i<=5;i++)
    {
        printf("a[%d]:",i);
        scanf("%d",&a[i]);
    }

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

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

            if(a[i]>max)
            {
                max=a[i];
                a[i]=a[j];
                a[j]=max;
            }

        }
    }
    printf("\nMax:%d",max);
}

```

OOOut putttt

A[0]:3
A[1]:5

```
A[2]:4  
A[3]:3  
A[4]:0  
A[5]:7
```

Max : 7

❖ String

```
#include<stdio.h>  
  
#include<string.h>  
  
void main ()  
{  
  
    char a[50];  
  
    printf("Enter Sting");  
    gets(a);  
  
    printf("%d",strlen(a));  
  
}
```

Out puuuut

Enter string : Ritul mangukiya

15

❖ Structures

```
#include<stdio.h>  
void max()  
{
```

```

int a,b,c;
printf("Enter A:");
scanf("%d",&a);
printf("Enter B:");
scanf("%d",&b);
printf("Enter C:");
scanf("%d",&c);

if(a>b&&a>c)
{
    printf("\tA is max");

}
else if (b>c)
{
    printf("\tB is max");
}
else
{
    printf("\tC is max");
}
}
void main ()
{
    max();
}

```

Out put

10
22
44

c is max

❖ Input & output

```

#include<stdio.h>
void main ()
{
    int a;

    printf("Enter Number:");
    scanf("%d",&a);

    printf("%d",a);
}

```

```
}
```

Out puut :::::

Enter number :20

20

❖ Type casting

```
#include <stdio.h>
Void main() {

    int i = 'A';
    char c = 'c'; /* ascii value is 99 */
    int sum;

    sum = i + c;
    printf("Value of sum : %d\n", sum );
}
```

Out put

Value of sum : 164

❖ Variable Arguments

```
#include<stdio.h>

void max(int x,int y,int z)
{

    if(x>y&& x>z)
    {

        printf("A is m ax");

    }

    else if (y>z)
    {

        printf("B is max");

    }

}
```

```
        else
        {
            printf("C is max");
        }

    }

void main ()
{
    int a,b,c;

    max(20,22,32);

}
```

Out put

C is max

BY

