

# FUNCTION PROGRAMS

## C PROGRAM using function to find the largest of three numbers.

```
#include<stdio.h>
#include<conio.h>
int large(int a, int b, int c)
{
    if(a>=b && a>=c)
        return a;
    else if(b>=a && b>=c)
        return b;
    else
        return c;
}

int main()
{
    clrscr();
    int num1, num2, num3, largest;

    printf("Enter three numbers: ");
    scanf("%d %d %d", &num1, &num2, &num3);

    largest = large(num1, num2, num3);
    printf("Largest number = %.d",largest);
    return 0;
}
```

## C Program for Function without argument and return value.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    void printname(); //Function Declaration
    printf("Hello ");
    printname();      //Invoking Function
    getch();
}
void printname()     //Function Defination
{
    printf("jpwebdevelopers");
}
```

### **C Program for Function without argument and with return value.**

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int total;
    int sum();
    total=sum(); //calling function having no arguments
    printf("%d",total);
    getch();
}
int sum()
{
    int a,b;
    printf("\nEnter two numbers");
    scanf("%d %d",&a,&b);
    return a+b;
}
```

### **C Program for Function with argument and without return value.**

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int sum(int,int);
    int a,b,total;
    printf("\nEnter two numbers");
    scanf("%d %d",&a,&b);
    sum(a,b);
}
int sum(int x, int y)
{
    int total;
    total=a+b;
    printf("\n%d",total);
}
```

### **C Program for Function with argument and with return value.**

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

```

    int a,b,result;
    int sum(a,b);
    printf("\nEnter two numbers:");
    scanf("%d %d",&a,&b);
    result = sum(a,b); //calling function having arguments
    printf("\nThe sum is : %d",result);
    getch();
}
int sum(int a, int b) //called function
{
    int total;
    total=a+b;
    return total;
}

```

### **C Program passing arguments using call by value method. (Swap two number).**

```

#include<stdio.h>
#include<conio.h>
void main()
{
    void swap (int a, int b); //function declaration
    int a,b;
    clrscr();
    printf ("Enter two numbers ");
    scanf ("%d%d",&a,&b) swap (a,b);
    swap(a,b);
    printf("a=%d b=%d",a,b);
    getch();
}
void swap (int a, int b) // function definition
{
    int temp;
    temp=a;
    a=b;
    b=temp;
    printf("a=%d b=%d\n",a,b);
}

```

### **C Program passing arguments using Call by Reference (swap two Number).**

```

#include<stdio.h>
#include<conio.h>
void main()
{
    void swap (int *, int *);
    int a, b;
    clrscr();
    printf ("enter two number");
}

```

```

scanf ("%d%d",&a,&b);
printf (" \n before swapping a=%d b=%d", a,b);
swap (&a, &b);
printf ("\n After swapping a=%d b=%d",a,b);
getch();
}
void swap (int *a, int *b)
{
int temp;
temp=*a;
*a = *b;
*b= temp;
}

```

### **C PROGRAM to find the factorial of a given number using Recursion.**

```

#include<stdio.h>
#include<conio.h>
void main()
{
int fact (int num);
int num;
clrscr();
printf ("enter number");
scanf ("%d" &num);
printf ("\n factorial is = %d", fact (num));
getch();
}
int fact (int n)
{
if (n==1)
return (1);
else
return (n* fact (n-1));
}

```