

# ❖ C LANGUAGE

## Function :

- A function is a block of code which only runs when it is called.
- You can pass data, known as parameters, into a function.
- The function is a piece of code that performs a specific task.
- Functions are also called Modules or Procedures.
- Functions are used to reduce repetition, reuse code and organize code.
- Syntax: return\_type function\_name(parameter\_list)

(1) With arguments With returns:

```
#include<stdio.h>

int add(int a,int b);          //Function declaration

int main()
{
    int s,x,y;
    printf("Enter the value of x:");
    scanf("%d",&x);
    printf("Enter the value of y:");
    scanf("%d",&y);

    s=add(x,y); //Function call - actual parameter

    printf("%d",s);
    return 0;
}

int add(int a,int b) //formal parameter - Function definition
{
    int c;
    c=a+b;
    return c;
}
```

(2) Without arguments With returns :

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

```
int sub();
```

```
int main()
```

```
{
```

```
    int s;
```

```
    s=sub();
```

```
    printf("Subtraction is %d",s);
```

```
    return 0;
```

```
}
```

```
int sub()
```

```
{
```

```
    int a,b,c;
```

```
    printf("Enter the value of a:");
```

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

```
    printf("Enter the value of b:");
```

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

```
    c=a-b;
```

```
    return c;
```

```
}
```

(3) With arguments Without return :

```
#include<stdio.h>

void multi(int a,int b);

int main()
{
    int x,y;

    printf("Enter the value of x:");
    scanf("%d",&x);

    printf("Enter the value of y:");
    scanf("%d",&y);

    multi(x,y);

    return 0;
}

void multi(int a,int b)
{
    int c;
    c=a*b;
    printf("Multiplication is %d",c);
}
```

(4) Without arguments Without returns :

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

```
float div();
```

```
int main()
```

```
{
```

```
    div();
```

```
    return 0;
```

```
}
```

```
float div()
```

```
{
```

```
    int a,b;
```

```
    float c;
```

```
    printf("Enter the value of a:");
```

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

```
    printf("Enter the value of b:");
```

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

```
    c=(float)a/(float)b;
```

```
    printf("Divison is %.2f",c);
```

```
}
```