Function Overloading:- Function overloading or function polymorphism is a concept that allows multiple functions to share the same name with different arguments.

→ This implies that the function definations can have multiple forms.

→ Assigning one or more function body to the same name is known as function overloading

→ Function overloading की सहायता से same operation के लिए different function name को eleminate करके एक single name use किया जाता है।

Ex- WAP in c++ swap function for function overloading

```
#include < iostream.h>
void swap ( char &x, char &y)
    {
    char t;
     t=x;
     x=y;
     y=t;
        }
void swap (int &x, int &t)
    {
     int t;
     t=x;
     x=y;
     y=t;
}
```

contd -

```
void main()
{
  char ch1, ch2;
  cout << "Enter two character ch1, ch2:";
    cin >> ch1 >> ch2;
  swap ( ch1, ch2 );
  cout << "After swapping ch1, ch2 :" << ch1 << ch2
    << endl;
  int a, b;
  cout << "Enter two integer a, b:";
  cin >> a >> b;
  swap (a, b);
  cout << "after swapping a, b :" << a << b << endl;
}
```

---

output -

Enter two character ch1, ch2: A B
After swapping ch1, ch2: B A
Enter two integer a, b: 10 20
After swapping a, b: 20 10

Constructor Overloading - An interesting feature of constructor - or is that a class have multiple constructors. (which have same name as class with different Parameter)

→ This is called constructor overloading.

Ex - WAP in C++ to illustrate constructor overloading.

```
# include <iostream>
using namespace std;
class construct
{
public:
float area;
construct()                    // constructor with no parameter.
{area = 0;
}
construct(int a, int b)        // constructor with 2 Parameter
{
area= a*b;
}
void display()
{
cout << area << endl;
}
};
int main() {
construct o();
construct o2(10,20);
o.display();
o2.display();
return 1; }
```

output:

0

200