```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=a++;
printf("%d%d",a,b);
getch();
}
//Output:6 5
```

```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=++a;
printf("%d%d",a,b);
getch();
}
//Output:6,6
```

```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=a++ + ++a;
printf("%d %d",a,b);
getch();
}
//Output:7 12
```

```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=++a + ++a;
printf("%d %d",a,b);
getch();
}
//Output:7 14
```



```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=a++ + a++;
printf("%d %d",a,b);
getch();
}
//Output:7 10
```

```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=++a + a++;
printf("%d %d",a,b);
getch();
}
//Output:7 12
```

```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=a++ + ++a + ++a;
printf("%d %d",a,b);
getch();
}
//Output:8 21
```

```
#include<conio.h>
#include<stdio.h>
void main()
{
int a=5,b;
clrscr();
b=++a + a++ + a++;
printf("%d %d",a,b);
getch();
}
//Output:8 18
```

```
//function :with RT no AL
#include<conio.h>
#include<stdio.h>
int add()
{
int a,b,c;
printf("\n Enter two no for addition :");
scanf("%d%d",&a,&b);
c=a+b;
return c;
}
void main()
{
int ad;
clrscr();
ad=add();
printf("\n Addition is %d",ad);
getch();
}
/*output:enter two no: 5 6
addition is 11*/
```

```
//function :with RT with AL
#include<conio.h>
#include<stdio.h>
int add(int a,int b)
{
int c;
c=a+b;
return c;
}
void main()
{
int ad,a,b;
clrscr();
printf("\n Enter two no for addition :");
scanf("%d%d",&a,&b);
ad=add(a,b);
printf("\n Addition is %d",ad);
getch();
}
/*output:enter two no: 5 6
addition is 11*/
```



```
//function :swap using call by value
#include<conio.h>
#include<stdio.h>
void swap(int a,int b)
{
int temp;
printf("\n values before swap in function :
%d %d",a,b);
temp=a;
a=b;
b=temp;
printf("\n values after swap in function :%d
%d",a,b);
}


continue==>
```

```
void main()
{
int a,b;
clrscr();
printf("\n Enter two no for swap :");
scanf("%d%d",&a,&b);
printf("\n values before swap in main :%d
%d",a,b);
swap(a,b);
printf("\n values after swap in main :%d
%d",a,b);
getch();
}
/*output:enter two no for swapping :5 4
in main before swap 5 4
in fun b4 swap 5 4
in fun after swap 4 5
in main after swap 5 4 */
```

```
//function :factorial of no.
#include<conio.h>
#include<stdio.h>
void fact(int a)
{
int i,fact=1;
for(i=1;i<=a;i++)
{
fact=fact*i;
}
printf("factorial is %d",fact);
}
void main()
{
int a;
clrscr();
printf("\n Enter no for factorial :");
scanf("%d",&a);
fact(a);
getch();
}
/*output:enter no for factorial :5
factorial is 120*/
```

```
//pgm for bitwise opr >> in cpp
#include<iostream.h>
#include<conio.h>
void main()
{
int a=5,c;
clrscr();
c=a>>1;
cout<< c;
getch();
}
//output:10
/* for 5 :0101
   it become 010 */
```

```
//function :swap using call by refference
#include<conio.h>
#include<stdio.h>
void swap(int &a,int &b)
{
int temp;
printf("\n values before swap in function :
%d %d",a,b);
temp=a;
a=b;
b=temp;
printf("\n values after swap in function :%d
%d",a,b);
}

//continue ==>>
```

```
void main()
{
int a,b;
clrscr();
printf("\n Enter two no for swap :");
scanf("%d%d",&a,&b);
printf("\n values before swap in main :%d
%d",a,b);
swap(a,b);
printf("\n values after swap in main :%d
%d",a,b);
getch();
}
/*output:enter two no for swapping :5 4
in main before swap 5 4
in fun b4 swap 5 4
in fun after swap 4 5
in main after swap 4 5 */
```

```
//static member in function
#include<conio.h>
#include<iostream.h>
class demo
{
static int val;
int x;
public:
void increament()
{
val++;
x++;
}
void show()
{
cout<<"\n Increament value :"<<val;
cout<<"\nX :"<<x;
}
void set()
{
x=0;
}
static void display()
{
cout<<"\n value :"<<val;
//cout<<"\nX :"<<x;
}
};
int demo::val;
void main()
{
clrscr();
demo d1,d2;
demo::display();
d1.set();
d2.set();
demo::display();
d1.increament();
d2.increament();
demo::display();
d1.show();
d2.show();
getch();
}
/*output :value 3   x=1
         value 3   x=1
         value 3   x=1    */
```

```
//static member in class
#include<conio.h>
#include<iostream.h>
class demo
{
static int val;
int x;
public:
void increament()
{
val++;
x++;
}
void show()
{
cout<<"\n Increament value :"<<val;
cout<<"\nX :"<<x;
}
void set()
{
x=0;
}
};
int demo::val;
void main()
{
clrscr();
demo d1,d2,d3;
d1.set();
d2.set();
d3.set();
d1.increament();
d2.increament();
d3.increament();
d1.show();
d2.show();
d3.show();
getch();
}
/*output :value 3   x=1
         value 3   x=1
         value 3   x=1
```

```
/*addn of 2 complex no. using oper overld
  and friend function */
#include<conio.h>
#include<iostream.h>
class binarydemo
{
int real,img;
public:
binarydemo()
{
cout<<"\n parameteless constructure ";
real=0;
img=0;
}
binarydemo(int a,int b)
{
cout<<"\n parameterised constructure ";
real=a;
img=b;
}
friend binarydemo operator +(binarydemo
o1,binarydemo o2)
{
binarydemo temp;
temp.real=o1.real+o2.real;
temp.img=o1.img+o2.img;
return temp;
}
void show()
{
cout<<"\n Real :"<<real;
cout<<"\n img :"<<img;
}
void set(int a,int b)
{
real=a;
img=b;
}
};
void main()
{
clrscr();
binarydemo c1(3,4),c2(5,6),c3;
c1.show();
c2.show();
c3.show();
//c3=c1+c2;
c3=operator +(c1,c2);
c3.show();
getch();
}

 /*output :
parameterised constructure
 parameterised constructure
 parameteless constructure
 Real :3
 img :4
 Real :5
 img :6
 Real :0
 img :0
 parameteless constructure
 Real :8
 img :10  */
```

```
//pgm for array of pointer
#include<conio.h>
#include<iostream.h>
void main()
{
clrscr();
int i;
char *name[3]={"a","b","c"};
//memory req:3*2+3
for(i=0;i<3;i++)
{
cout<<*name[i];
}
getch();
}
/* abc */
```

```
//pgm for pointer to object
#include<conio.h>
#include<iostream.h>
class demo
{
public:
void hello()
{
cout<<"\n Good  morning ";
}
};
void main()
{
clrscr();
demo o;
o.hello();
demo *ptr;
ptr=&o;
ptr->hello();
getch();
}
/* good morning
   good morning */
```

```
//pgm for pointer to object 1
#include<conio.h>
#include<string.h>
#include<iostream.h>
class student
{
int roll;
char *name;
public:
void set(int r,char *s)
{
roll=r;
strcpy(name,s);
}
void show()
{
cout<<"\n Roll no :"<<roll;
cout<<"\n name :"<<name;
}
};
```

```
void main()
{
clrscr();
student s;
//student s=new student;
student *p=&s;
//student *p=new student;
p->set(3,"abc");
p->show();
getch();
}
/* Roll no :3
   Name :abc */
```

```
//if same fun name in both class
#include<conio.h>
#include<iostream.h>
class A
{
public:
void show()
{
cout<<"\n in class A ";
}
};
class B:public A
{
public:
void show()
{
cout<<"\n in class B ";
}
};
void main()
{
clrscr();
A oa;
oa.show();
B ob;
ob.show();
ob.A::show();
getch();
}
/*
 in class A
 in class B
 in class A */
```

```
//this pointer
#include<conio.h>
#include<iostream.h>
class larger
{
int x;
public:
void set(int a)
{
this->x=a;
}
void show()
{
cout<<"\n x "<<x;
}
larger lar(larger l1)
{
if(x>l1.a)
return *this;
else
return l1;
}
void main()
{
clrscr();
larger l1,l2,l3,l4,l;
l1.set(10);
l2.set(20);
l=l1.lar(l2);
l.show();
getch();
}
/*20 */
```