PART B

12.) Write a C++ program to swap integer, floating point numbers and characters by using call by value and call by reference.

```
#include<iostream>
using namespace std;
template<class t>void swv(t a,t b)
{
cout<<"\nBefore swap(in function) a = "<<a<<" & b = "<<b<<"\n";
t x;
x=a;
a=b;
b=x;
cout<<"\nAfter swap(in function) a = "<<a<<" & b = "<<b<<"\n";
}
template<class t,class w>void swp(t *a,w *b)
{
cout<<"\nBefore swap (in function) a = "<<*a<<" & b = "<<*b<<"\n";
t y;
y=*a;
*a=*b;
*b=y;
cout<<"\nAfter swap (in function) a = "<<*a<<" & b "<<*b<<"\n";
}
int main()
{
int a,b;
float x,y;
char m,n;
cout<<"\nEnter two integers\n";
cin>>a>>b;
swv(a,b);
cout<<"\nAfter swap a & b(in main)\n"<<"a: "<<a<<"\nb: "<<b;
swp(&a,&b);
cout<<"\nAfter swap a & b(in main)\n"<<"a: "<<a<<"\nb: "<<b;
cout<<"\nEnter two float nos.\n";
cin>>x>>y;
swv(x,y);
cout<<"\nAfter swap a & b(in main)\n"<<"a: "<<x<<"\nb: "<<y;
swp(&x,&y);
cout<<"\nAfter swap a & b(in main)\n"<<"a: "<<x<<"\nb: "<<y;
cout<<"\nEnter two char \n";
cin>>m>>n;
```

```
swv(m,n);
cout<<"\nAfter swap a & b(in main)\n"<<"a: "<<m<<"\nb: "<<n;
swp(&m,&n);
```

```
cout<<"\nAfter swap a & b(in main)\n"<<"a: "<<m<<"\nb: "<<n;
return 0;
}
```

---

13) (a) Write a C++ program to create a file to store Account holder name, account number and Balance for given number of customers. Also retrieve the values from the file and print it on the standard output.

```
#include<iostream>
#include<fstream>
using namespace std;
struct bank
{
char name[20];
double bal;
long acc;
};
int main()
{
int n,i;
cout<<"Enter no. of entries \n";
cin>>n;
struct bank b[n];
ofstream op("bank.txt",ios::out);
if(!op)
{
cout<<"Cannot open file \n";
return 1;
}
for(i=0;i<n;i++)
{
cout<<"enter a/c no.,name & bal of customer : "<<i+1<<"\n";
cin>>b[i].acc>>b[i].name>>b[i].bal;
op.write((char *)&b[i],sizeof(struct bank));
}
op.close();
ifstream ip("bank.txt",ios::in);
if(!ip)
{
cout<<"File doesn't exists \n";
return 1;
}
for(i=0;i<n;i++)
{
```

```
if(ip)
{
ip.read((char *)&b[i],sizeof(struct bank));
cout<<"A/c no : "<<b[i].acc<<"\n";
cout<<"Name : "<<b[i].name<<"\n";
cout<<"Balance (in INR) : "<<b[i].bal<<"\n";
}
}
```

```
ip.close();
return 0;
}
```
---
13 (b).Write a C++ program to convert dollar to rupees, euro to rupees and pound to rupees using pure virtual functions.
1 dollar = 54.3 Rs
1 pound = 81.1Rs
1 euro = 70. Rs

```
#include<iostream>
using namespace std;
class rs
{
public:
float rs;
virtual void conv()=0;
void disp()
{
cout<<" is eqvivalent to "<<rs<<" INR \n";
}
};
class doll:public rs
{
float dol;
public:
void conv()
{
cout<<"Enter currncy in dollar \n";
cin>>dol;
rs=54.3*dol;
cout<<" "<<dol<<" in dollar ";
disp();
}
};
class euro:public rs
{
float er;
public:
void conv()
{
cout<<"Enter currency in Euro \n";
cin>>er;
rs=70.2*er;
```

```
cout<<" "<<er<<" in euro ";
disp();
}
};
class pd:public rs
{
```

```
float pnd;
public:
void conv()
{
cout<<"Enter currency in pound \n";
cin>>pnd;
rs=81.1*pnd;
cout<<" "<<pnd<<" in pound ";
disp();
}
};
int main()
{
int c;
doll d;
euro e;
pd p;
cout<<"\t\t\t Currency conversion \n";
while(1)
{
cout<<"1.$ to Rs. 2.Euro to Rs. 3.Pound to Rs. 4.Exit \n";
cin>>c;
switch(c)
{
case 1:d.conv();
break;
case 2:e.conv();
break;
case 3:p.conv();
break;
default:return 0;
}
}
return 0;
}
```