- 1) Write C++ statements to do the following(30)
- a. Declare an array alpha of 15 components of type int.

Int alpha[15]

b. Output the value of the tenth component of the array alpha.

Cout << alpha[9]

c. Set the value of the fifth component of the array alpha to 35.

alpha[4]=35

d. Set the value of the ninth component of the array alpha to the sum of the sixth and thirteenth components of the array alpha.

alpha[8]=alpha[5]+alpha[12]

e. Set the value of the fourth component of the array alpha to three times the value of the eighth component minus 57.

```
alpha[3]=3*alpha[7]-57
```

f. Output alpha so that five components per line are printed.

```
for(int i=0; i<=14;i++){

If(i%5==0){

cout<<endl;
}

cout<<alpha[i]<<"";
```

2) What is the output of the following program segment?(30)

```
int temp[5];
for (int i = 0; i < 5; i++)
    temp[i] = 2 * i - 3;

for (int i = 0; i < 5; i++)
    cout << temp[i] << " ";
cout << endl;

temp[0] = temp[4];
temp[4] = temp[1];
temp[2] = temp[3] + temp[0];

for (int i = 0; i < 5; i++)
    cout << temp[i] << " ";
cout << endl;</pre>
```

```
Output
-3 -1 1 3 5
5 -1 8 3 -1
```

3) Write a C++ program that declares an array alpha of 50 components of type double. Initialize the array so that the first 25 components are equal to the square of the index variable, and the last 25 components are equal to three times the index variable. Output the array so that 10 elements per line are printed.(40)

```
#include<iostream>
#include<cmath
Using namespace std;
int main(){
For(int i=0; i<50;i++){
If(i<25) {
alpha[i]=pow(i,2)
Else
alpha[i]=i*3;
}
For(int i=0; i<50;I++){
If(i\%10==0){
cout<<endl;
cout<<alpha[i]<< " ";
}
}
return 0;
}
```