Patterns
(Assignment Solutions)

Question 1 :

```cpp
//0-1 Triangle Pattern
   bool val = true;
   int n = 5;
   for(int i=0; i<n; i++) {
       for(int j=0; j<=i; j++) {
           cout << val << " ";
           val = !val;
       }
       cout << "\n";
   }
```

Question 2 :

```cpp
//Rhombus Pattern
   int n = 5;
   for(int i=0; i<n; i++) {
       //spaces
       for(int j=0; j<=n-i-1; j++) {
           cout << " ";
       }
       //stars
       for(int j=0; j<n; j++) {
           cout << "*";
       }
       cout << endl;
   }
```

Question 3 :

```cpp
//Palindromic Pattern with Numbers
   int n = 5;
   for(int i=1; i<=n; i++) {
       //spaces
```

```cpp
        for(int j=1; j<=n-i; j++) {
            cout << " ";
        }


        //nums backward
        for(int j=i; j>=1; j--) {
            cout << j;
        }


        //nums forward
        for(int j=2; j<=i; j++) {
            cout << j;
        }
        cout << endl;
    }
```