

Patterns

(Assignment Solutions)

Question 1 :

```
//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 :

```
//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 :

```
//Palindromic Pattern with Numbers

int n = 5;
for(int i=1; i<=n; i++) {
    //spaces
```

```
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;  
}
```