1)
```
# include < iostream >
using namespace    std;

int main ()
{
    int rows;
    cout <<" enter number of rows"; change
    cin >> rows                        only the
                                        cout".
    for (int i = 1 ; i < rows ; i++)
    {
        for (int space = 1 ; space < rows - i ,
                                        space ++)}
    }

    for (int j = 0 ; j ≠ 2 x i - 1 , ++j) {
        if (i = 1 || j = 0 || j = 2* i-2)
            cout <<" *";
    else
            cout <<"   " ;
    cout << endl ;
    }
    return 0;
}
```

2)   logic
```
for (int i = 1 , i >, rows 1 , --i)}
```

a)

```cpp
# include <iostream>
using namespace std;

int main () {
    int n = 5;
    char ch = 'A';
    for (int i = 1 ; i <= n ; i++)
    {
        for (int j = 1 ; j <= n-1 ; j++)
        {
            cout << " ";

        for (int k = 1 ; k = <= i * (i+1)/2 ;
                            k++) {
        { cout << ch << " ";
          ch++;
        }
        cout << endl;
    }
    return 0;
}
```

4)

```cpp
#include <iostream>
using namespace std;

int main()
{
    int n=;
    cout<<" enter the no of rows";
    cin>>n;

    for (int i=1 , i<=n; i++)
    {
        for (int k=i, k<i , k++)
        {
            if (i=1 || i=n || k=1 || k=i)
            {
                cout <<" K <<"  ";
            }
            else {
                cout <<"  ";
            }
        }
        cout << endl;
    }
    return 0;
}
```

Q5)

```cpp
# include      <iostream>
    using namespace std;

    int main().
    {
        int n;
        cout<<" enter the no. of rows:";
        cin >>     n;

        for (int i = 1, i < n ; i++)
        {
            for (int j=1; j < n-1 ; j++)
            {
                cout <<"   ";
            }
            For (int k = 1; k < i; k++)
            {
                cout << k <<"  ";
            }
            for (int k = i-1 , k >= 1; k--)
            {
                out << k <<"  ";
            }
            cout << endl;
        }
        return 0;

    }
```