



Benha University

## Computer Programming (1) ECE 113C

Computer Systems Engineering  
Electrical Engineering Department



Faculty of Engineering  
(at Shoubra)

### Quiz (3)

**(Q1). Determine the output for the following code snippet:**

```

for (int i = 0; i < 5; i++) {
    for (int j = 0; j < 5; j++) {
        if (i == j || i == 4 - j)
            cout << " * ";
        else
            cout << " ";
    }
    cout << endl;
}

```

**(Q2). Write programs to execute the following outputs:**

(a)

```

* * * * *
*       *
*       *
*       *
*       *
* * * * *

```

(b)

```

*       *       *
*       *       *
*       *       *
*       *       *
*       *       *

```

**(Q3). Calculate the value of  $\pi$  from the following infinite series:**

$$\pi = 4 - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \frac{4}{9} - \frac{4}{11} + \dots$$