



EAST WEST UNIVERSITY
Department of Computer Science & Engineering
B.Sc. in Computer Science and Engineering Program
Quiz III, Fall 2020 Semester

Course: CSE411 Software Engineering and Information System Design, Section-2
Instructor: Md. Mohsin Uddin, Senior Lecturer, Department of CSE
Total Marks: 20 (10 will be counted for final grading)
Time: 30 Minutes

- 1. Write** unit testing code for the following program. Make sure all the methods are tested except getter and setter methods. [CO3,C3, Marks: 20]

```
public class ComplexNumber {
    private int real, imag;
    public ComplexNumber(int real, int imag) {
        this.real = real; this.imag = imag;
    }
    public int getReal() {return real;}
    public int getImag() {return imag;}
    public void setReal(int real) {this.real = real;}
    public void setImag(int imag) {this.imag = imag;}
    public static ComplexNumber add(ComplexNumber c1, ComplexNumber c2){
        ComplexNumber temp = new ComplexNumber(0, 0);
        temp.real = c1.real+c2.real;
        temp.imag = c1.imag+c2.imag;
        return temp;
    }
    public static ComplexNumber subtract(ComplexNumber c1, ComplexNumber c2){
        ComplexNumber temp = new ComplexNumber(0, 0);
        temp.real = c1.real-c2.real; temp.imag = c1.imag-c2.imag;
        return temp;
    }
    public static void main(String[] args) {
        ComplexNumber c1 = new ComplexNumber(5, 10);
        ComplexNumber c2 = new ComplexNumber(15, 4);
        ComplexNumber sum = add(c1, c2);
        System.out.println(" "+sum.real+"+i "+sum.imag);
    }
}
```