United International University (UIU)

Dept. of Computer Science & Engineering (CSE)

Class Test II **: : Trimester: Summer - 2021**

Course Code: CSE 1115, Course Title: Object-Oriented Programming, Sec: B

Total Marks: **10** Duration: **30 Minutes**

Answer all questions. Figures are in the right-hand margin indicates full marks.

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1. Write the output of the following code: **[5]**

```
public class Zoo {
    public static void main(String[] args) {
        Animal a = new Animal();
        Bird b = new Magpie();
        Magpie c = (Magpie) b;

        a.fly();
        b.fly();
        ((Magpie)b).fly(15);
        c.fly();

        a.eat();
        b.eat();
        c.eat();
    }
}
```

```
class Magpie extends Bird{
    Magpie(){
        System.out.println("A magpie is created.");
    }
    void fly(){
        System.out.println("Magpie is flying...");
    }
    void fly(int speed){
        System.out.println( "Magpie is flying at speed: "
            + speed);
    }
    void eat(){
        System.out.println( "Magpie is eating.");
    }
}
```

```
class Bird extends Animal{
    Bird(){
        System.out.println("A bird is created.");
    }
    void fly(){
        System.out.println("Flying...");
    }
}
```

```
class Animal{
    Animal() {
        System.out.println( "An animal is created.");
    }
    void fly(){
        System.out.println("Don't know if I can fly!");
    }
    void eat(){
        System.out.println("Eating...");
    }
}
```

2. Consider the following **FruitShop** class. Now, write a class **Fruit** in such a way that **FruitShop** class will give expected output as shown below. **[5]**

Class FruitShop	**Output**

public class FruitShop {
  public static void main(String[] args) {
  Fruit fruit1 = new Fruit("Apple", 3.5, 110);
  Fruit fruit2 = new Fruit("Mango", 5, 90);
 	
  fruit1.reducePricePerKG(10);
  fruit2.increasePricePerKG(20);
 	
  fruit1.printDetails();
  fruit2.printDetails();
  }
}
	Fruit Details:
	Name: Apple
	Weight: 3.5kg
	Price per kg: 100.0
	Total price: 350.0
	
	Fruit Details:
	Name: Mango
	Weight: 5.0kg
	Price per kg: 110.0
	Total price: 550.0