Faculty of Information Technology

Year: 2020-2021 (Midterm)

Course Name: Programming Techniques (3)

Course Code: SWE203 Instructor: Dr. Sanaa Taha



Date: 07/12/2020 Time Allowed: 60

Mark: 20

Test Code: 54

## I. Multiple Choices Questions

1- Choose the correct answer if we want to add the weight=2 & price=20 of the apple item

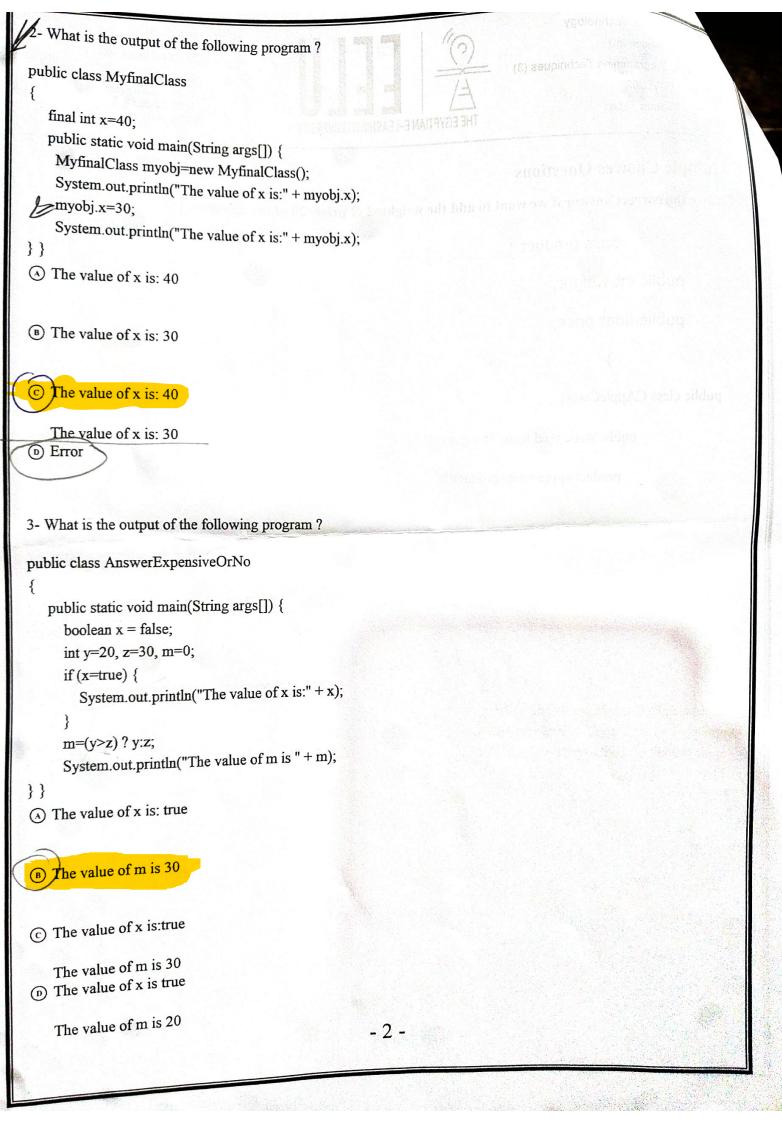
```
class product {
  public int weight;
  public float price;
  }
public class CAppleClass {
    public static void main(String args[]) {
        product apple = new product();
}
```

Fill in here from the choices below

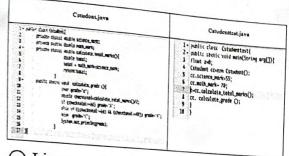
1

apple.weight=2; apple.price= (float) 20.0;

- apple->weight=2; apple->price= (int) 20.0;
- © apple-weight=2; apple--price= (float) 20.0;
- D Error.



## State the number of lines in the following program that will cause error?



- (A) Lines number 2, 3, 4 in the File name Cstudent. Java
- B Lines number 4, 5,6 in the File name Cstudenttest. Java
- © Lines number 5, 6,7 in the File name Cstudenttest. Java
- D Lines number 7 and 8 in the File name Cstudenttest.Java

## What is the output of the following program?

```
class Vehicle
{
  int maxspeed=140;
}
class Car extends Vehicle
{
  int maxspeed=170;
  public void Display() {System.out.println("the maximum speed is " + super.maxspeed);}
}
public class MyClassTest {
  public static void main(String args[]) {
    Car obj=new Car();
    obj.Display();
  }
}
}
the maximum speed is 170
the maximum speed is 140
the maximum speed is 0
the maximum speed is 0

ERROR
```

6- What is the value of n after the following switch statement? int n = 22; switch(n) case 20: n++; break; **(A)** 20 ® 21 © 22 (i) 110 7- A class is the blueprint of an -----(A) class (B) object © method all the above What is the output of the following program? public class MyClass { public static void main(String args[]) { double a = 10; double b = 10.75; int c = 10; System.out.println (c + ((int)b > a)? b : (a)); A) 20 ® 20.75 © 10.75 1 None of the above

```
1. Which of the following class definitions is correct in Java?
(A) public int class Cstudent{
                 public static void main (String args[]) {
                   int x = 20, y = 10, z=0;
                   if (x > 29)
                           y = x + 11;
                    System.out.println("x = " + x + ", y = " + y + ", z = " + z);
                };
 B public class 3Cstudent {
                  public static void main (String args[]) {
                    int x = 20, y = 10, z=0;
                     if (x > 29)
                            y = x + 11;
                     System.out.println("x = " + x + ", y = " + y + ", z = " + z);
                      }
                  };
       public class Cstudent {
                    public static void main (String args[]) {
                      int x = 20, y = 10, z=0;
                      if (x > 29)
                             y = x + 11;
                      System.out.println("x = " + x + ", y = " + y + ", z = " + z);
    (D) int public class Cstudent {
                     public static void main (String args[]) {
```

```
int x = 20, y = 10, z=0;
if (x > 29)
        y = x + 11;
System.out.println("x = " + x + ", y = " + y + ", z = " + z);
 }
}
```

10- Which one of the following is a correct in Java to express: y is between x and z

- © (y > x && y < z)
- ①  $(y \ge (x \&\& y) \ge z)$

## II. True or False Questions

1- The compiler will create a default constructor only if your class does not declare any constructors of its own objects

- ® False

2-

a. The class can be declared as private as long as it is nested class.

- True
- False

3- An overriding method has the same name as in the superclass, but a different signature.

- (A) True
- ® False

4- Protected members are accessible only to methods of their class and to methods of their subclasses

- (A) True
- B False

6- Objects of abstract superclasses can be instantiated

- ♠ True
- (B) False

6- When a subclass redefines a superclass method by using the same signature, the subclass is said to overload that superclass method.

- A True

7- Subclass constructors can call superclass constructors via the keyword super

(A) True B False

- 8- A file may contain as many classes as you like as long as each of these classes is declared public.

  1 True

  1 Projective
- Polymorphism enables objects of different classes that are related by a class hierarchy to be processed generically

  B False
- 10- At most one package declaration can appear in a source file, and the package keyword creates a package.
- (A) True
- B False