Fasilkom-TI - USU

PROGRAM STUDI: TEKNOLOGI INFORMASI UJIAN AKHIR SEMESTER 2020/2021 - B MATA KULIAH: PBO LANJUTAN/TIF2306

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1. What will be the output of the program?

```
public class Foo {
   public static void main(String[] args) {
        try {
            return;
        }
        Finally {
            System.out.println( "Finally" );
        }
    }
}
```

Answer.

- A. Finally
- B. Compilation fails.
- C. The code runs with no output.
- D. An exception is thrown at runtime.

2. What will be the output of the program?

```
public class X {
    public static void main(String [] args){
            badMethod();
            System.out.print("A");
        }
        catch (Exception ex){
            System.out.print("B");
        }
        finally {
            System.out.print("C");
        }
        System.out.print("D");
    public static void badMethod() {
        throw new Error(); /* Line 22 */
    }
}
```

## Answer.

- A. ABCD
- B. Compilation fails
- C. C is printed before exiting with an error message.
- D. BC is printed before exiting with an error message.

```
3. What is the output for the below code?
   public interface InfA {
     protected String getName();
   }
   public class Test implements InfA{
     public String getName(){
     return "test-name";
   }
   public static void main (String[] args){
     Test t = new Test();
     System.out.println(t.getName());
     }
   }
   Answer.
   A. Test-name
```

- B. Compilation fails due to an error on lines 2
- C. Compilation fails due to an error on lines 1
- D. Compilation succeed but Runtime Exception

4. What will be the output of the program?

```
class PassA {
   public static void main(String [] args) {
        PassA p = new PassA();
        p.start();
   }

   void start(){
        long [] a1 = {3,4,5};
        long [] a2 = fix(a1);
        System.out.print(a1[0] + a1[1] + a1[2] + " ");
        System.out.println(a2[0] + a2[1] + a2[2]);
   }

   long [] fix(long [] a3){
        a3[1] = 7;
        return a3;
   }
}
```

Answer.

A. 12 15

B. 15 15

C. 345375

D. 375375

When answering the next 3 questions, consider this program; comments indicate where missing needed components of the program are to be placed.

```
public class MainClass{
   //definition of a function that prints out a
     greeting
  public static void main(String[] args) {
     //(2) print the greeting
     //(3) construct a MyClass object called
      mvObject
     //(4) update myObject// print myObject
class MyClass{
   // (1) definition of MyClass constructor
   public static void greetings() {
   // definition of greets
   public void update(int num, String title){
     // definition of update
  public void print(){
     // definition of print
  private int numOfItems;
 private String reportTitle;
}
```

5. Suppose you are writing the definition of MyClass (line (1) above). Which of the following function signatures (headers) is correct?

```
A.public MyClass

B.public MyClass()

C.public void MyClass

D.public void MyClass()

E.public MyClass(void)
```

6. Suppose you wish to call the method that prints the greeting, at line(2) above. Which of the following statements will call this method correctly? myObject is the MyClass object defined in the question above.

```
A.MainClass.greetings();
B.myObject.greetings();
C.MyClass.greetings();
D.void result = greetings();
E.greetings();
```

7. Suppose you wish to construct aMyClass object called myObject at line (3) above. Which of the following statements will correctly do this?

```
A.MyClass myObject;
B.myObject.MyClass();
C.MyClass myObject = MyClass();
D.MyClass myObject = new(MyClass);
E.MyClass myObject = new MyClass();
```

8. Suppose you have a class MyClass and want to easily replace the contents of one object, target, with the contents of another object of MyClass, source. Which of the following statements would correctly create the copy?

```
A.target = source;
B.target.clone(source);
C.target = source.clone();
D.target = source.equals();
E.target = (MyClass) source.clone();
```

- 9. A. Explain the difference between implementing an interface and a derived class.
  - B. Explain the difference between how method parameters are passed for variables that contain object references and variables that contain primitive data types.
- 10. Write a method in Java, called mySubString that takes 2 strings as arguments and returns a boolean value: true, only if one of the strings in a substring of the other. Do NOT use any manipulation methods of the String class other than length()