Exam on Java Fundamentals/OOP_17042023

Total points 43/70

Email *

khalid.shifullah@bjitacademy.com

0 of 0 points

Full Name *

Khalid Shifullah

EID *

30062

Time: 75 minutes

43 of 70 points

What is the output for the below code ? * 3/3

```
public class C { }
public class D extends C{}
public class A {
   public C getOBJ(){
      System.out.println("class A - return C");
      return new C();
   }
}
public class B extends A{
      public D getOBJ(){
      System.out.println("class B - return D");
      return new D();
       }
}
public class Test {
public static void main(String[] args) {
    A a = new B();
    a.getOBJ();
      }
}
```

- A) Compilor error
- B) class A - return C
- C) class B - return D
- D) Runtime Exception

Feedback

Both of the above options are correct.

Which of the following is the correct lambda expression which add two numbers and return their sum? *2/2

- A - (int a, int b) -> { return a + b;};
- B - (a, b) -> {return a + b;};
- (selected) C - Both of the above.
- D - None of the above.

What is the output? * 0/2

```
class Parent {
    Integer get() {
        return 1;
    }
}

class Child extends Parent {
    Double get() {
        return 2.0;
    }
}
public class Test {
    public static void main(String[] args) {
        System.out.println(new Child().get());
    }
}
```

- (selected) (A) 2.0
- (B) Compilation Fails
- (C) ClassCastException
- (D) none

Which Option is true? * 2/2

- (●) a) Throwable is an interface
- ( ) b) Throwable is an abstract class
- ( ) c) Throwable is a class
- ( ) d) Throwable is an enum

Which of the following are valid lambda expressions? * 2/2

- ( ) String a, String b -> System.out.print(a+ b);
- ( ) () -> return;
- (●) (int i) -> i;
- ( ) (int i) -> i++; return i;

What is the output accordingly the line depicted by comments? * 0/2

```
class Test{
      int i;
      public static void main (String[] args) {
         int i; // Line 1
         private int a = 1; // Line 2
         protected int b = 1; // Line 3
         public int c = 1; // Line 4
         System.out.println(a+b+c); // Line 5
      }
}
```

- (A) prints 3
- (B) compiletime error at lines 2,3,4
- (C) compiletime error at lines 2,3,4,5
- (D) compiletime error at lines 1,2,3,4,5

Which of these method of Thread class is used to Suspend a thread for a period of time? *1/1

- A. stop()
- B. sleep()
- C. terminate()
- D. suspend()

What is the output of below code? * 3/3

```
public class A {
  public A(){
    System.out.println("A");
  }
}

public class B extends A{
  public B(){
    System.out.println("B");
  }
}

public class C extends B{
  public C(){
    System.out.println("C");
  }
}

public class Test{
   public static void main (String[] args){
      C c = new C();
   }
}
```

- (●) A B C
- ( ) C B A
- ( ) C
- ( ) Compilation fails

What is the result of below program? * 2/2

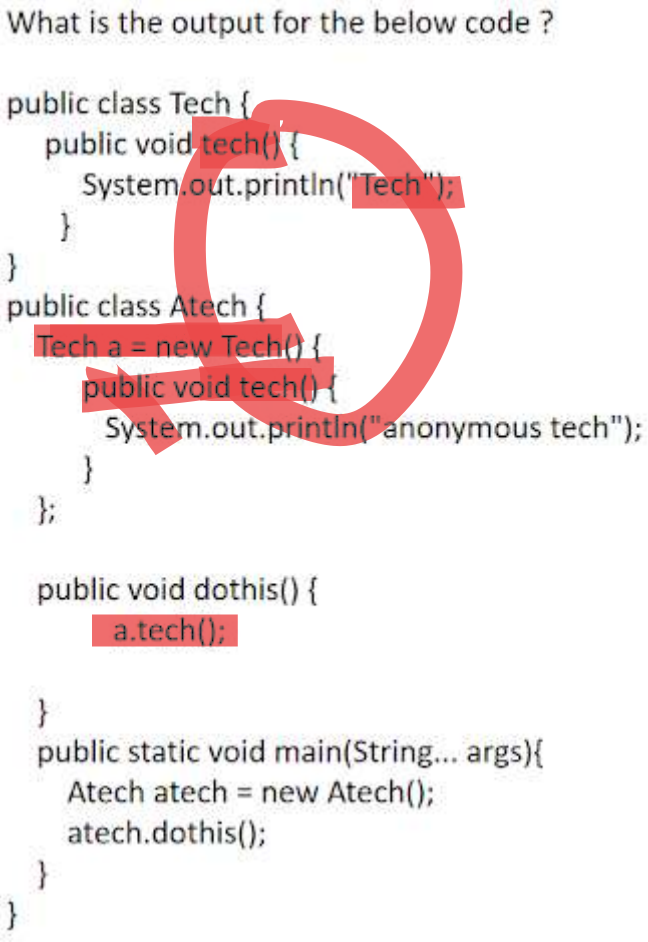
```
public class Man {
   Man() { System.out.print("Man "); }
    }
public class Father extends Man {
   Father(String type) { System.out.print(type); }
}
public class Son extends Father{
   Son() {
       super("Father ");
       new Father("Son ");
      }
   public static void main(String[] args){
      new Son();
   }
}
```

- A. Compilation fails.
- B. Man Father Man Son
- C. Man Father Man
- D. Man Father Son

A private member of a class is visible to – * 1/1

- every where
- in sub class
- members to same package
- only members of same class.

What is the output for the below code ? * 0/3



- ○ A)anonymous tech
- ○ B)Compile Error
- ○ C)Tech
- ◉ D)anonymous tech Tech

Which one is true for given scenario? * 2/2

```
Given:
public class Test implements Runnable {
    public void run() {
        System.out.println("run.");
      throw new RuntimeException("Problem");
    }
  public static void main(String[] args) {
     Thread t = new Thread(new Test());
    t.start();
   System.out.println("End of method.");
  }
}
```

- A. End of method. java.lang.RuntimeException: Problem run.
- B. End of method. run. java.lang.RuntimeException: Problem
- C. java.lang.RuntimeException: Problem
- D. End of method. java.lang.RuntimeException: Problem

What is the output for the below code snippet ? * 1/1

```
public class Test {
    public static void main(String[] args) {
        Integer i = null;
        int j = i;
        System.out.println(j);
    }
}
```

- A) 0
- B) Compile with error
- C) null
- D) NullPointerException

The current directory does NOT contain a directory named "dir" Which one is true? *2/2

Given:

```
1.  public class FileTest{
2.    public static void main(String[] args){
3.      File dir = new File("dir");
4.      dir.mkdir();
5.      File f1 = new File(dir, "f1.txt");
6.      try {
7.      f1.createNewFile();
8.       } catch (IOException e) { ; }
9.   }
10. }
```

- A. Line 3 creates a directory named "dir" in the file and a file f1.txt
- B. Line 3 creates a directory named "dir" in the file system.
- C. Line 4 creates a directory named "dir" in the file system.
- D. Line 7 creates a directory named "dir" in the file system.

Given the code. What is the result? * 2/2

```
public static void main(String args[]) {
   String str = null;
   if (str.length() == 0) {
      System.out.print("1");
   } else if (str == null) {
      System.out.print("2");
   } else {
      System.out.print("3");
   }
}
```

- ○ A) Compilation fails.
- ○ B) "1" is printed.
- ○ C) "2" is printed.
- ○ D) "3" is printed.
- ◉ E) An exception is thrown at runtime.

Which of the following option is FALSE about Functional Interface? * 2/2

- ○ Runnable, Comparable are some of the examples of functional interfaces
- ○ A functional interface is an interface that contains only one abstract method.
- ○ Functional Interface is additionally recognized as Single Abstract Method Interfaces
- ◉ It can not include any default and static methods.

Can constructor return value? * 1/1

- ○ Yes
- ◉ No
- ○ Depends on implementation
- ○ If super class constructor is called in sub-class.

5. What will be the result? * 0/2

```
public class Shape {
   String name = "No name";
    public Shape(String nm) { name = nm; }
}

public class Circle extends Shape {
   String cid = "0000";
   public Circle(String id) {
      cid = id;
    }
}

public class CircleTest{
   public static void main(String[] args){
       Circle e = new Circle("test");
       System.out.println(e.cid);
    }
}
```

- ○ A. Compilation of class Circle will fail because of an error in line 3.
- ◉ B. test
- ○ C. Compilation of class CircleTest will fail because of an error in line 3.
- ○ D. Compilation will succeed for all classes and print "0000".

Which code, inserted at line 7, will cause a java.lang.ClassCastException? * 2/2

Given:

```
1.interface A {}
2.interface B extends A {}
3.public class C implements B{}
4.public class D extends C{
5.  public static void main(String[] args){
6.      C c = new C();
7.      //insert code here
8.  }
9.}
```

- A. A a = (B)c;
- B. A a = (D)c;
- C. A a = c;
- D. B b = c;

When shutdown() method tries to destroy the ExecutorService * 0/1

- A. immediately
- B. after complete all tasks
- C) None of the above

What is result? * 0/2

```
Given:
public class StrBoo {
 public static void main(String[] args) {
    List lst = new ArrayList();
    lst.add(new Integer(12).intValue());
    lst.add(new String("foo"));
    lst.add(new Boolean(true));
    Arrays.sort(lst.toArray());
    for (int i = 0; i < lst.size(); i++) {
       System.out.print(lst.get(i).toString());
    }
 }
}
```

- A. 12 foo true
- B. 12 foo TRUE
- C. Compilation fails. (selected)
- D. throws java.lang.ClassCastException

Which will contain the body of the thread? * 1/1

- A. main();
- B. stop();
- C. start();
- D. run(); (selected)

What will be the output of this Program? * 2/2

```
public class WithoutbookTest{
   public static void aMethod() throws Exception  {
      try {
          throw new Exception();
      } finally  {
          System.out.print("finally ");
      }
   }

   public static void main(String args[]) {
      try {
        aMethod();
      } catch (Exception e)  {
        System.out.print("exception ");
      }
      System.out.print("finished");
   }
}
```

- (A) exception finished
- (B) finally
- (C) Compilation fails
- (D) finally exception finished

Which code, inserted at line 13, will allow this class to correctly serialize and deserialize? *0/2

```
1.public class KOKO implements Serializable{
2.  public int i;
3.  public KOKO(int j){
4.     this.i=j;
5.     };
6.  private void writeObject(ObjectOutputStream s)
7.     throws IOException{
8.     s.writeLong(i);
9.      }
10.
11. private void readObject(ObjectInputStream s)
12.  throws IOException {
13.     //insert code here
14.  }
15.}
```

- A. i = s.readInt();
- B. i = s.readLong();
- C. i = s.readObject();
- D. i = s.defaultReadObject();

Given the code. What is the result? * 0/3

```
class Vehicle {
   public void printSound() {
      System.out.print("vehicle");
   }
}

class Car extends Vehicle {
   public void printSound() {
      System.out.print("car");
   }
}

class Bike extends Vehicle {
   public void printSound() {
      System.out.print("bike");
   }
}
public class Test {
   public static void main(String[] args) {
      Vehicle v = new Car();
      Bike b = (Bike) v;
      v.printSound();
      b.printSound();
   }
}
```

- (●) A) Compilation fails.
- ( ) B) An exception is thrown at runtime.
- ( ) C) "vehiclecar" is printed.
- ( ) D) "vehiclebike" is printed.
- ( ) E) "carcar" is printed.
- ( ) F) "bikebike" is printed

What is the output? * 0/2

```
class Parent {
   String message = "parent";
   void say() {
      System.out.println(message);
   }
}

class Child extends Parent {
   String message = "child";
}

public class Test {
   public static void main(String[] args) {
      new Child().say();
   }
}
```

- A) Parent
- B) Child
- C) Compilation Fails
- D) Runtime Exceptions

What will be the output of the following Java program? * 0/1

```
class exception_handling
    {
        public static void main(String args[])
        {
            try
            {
                System.out.print("Hello" + " " + 1 / 0);
            }
            catch(ArithmeticException e)
            {
          System.out.print("World");
            }
        }
    }
```

- a) Hello
- b)World
- c)HelloWorld
- d)Hello World

What is the output for the below code ? * 2/2

```
public  class A {
      public A(int i){
      System.out.println(i);
   }
}
1. public class B extends A{
2.  public B(){
3.     super(6);
4.     this();
5.  }
6. }

public class Test{
   public static void main (String[] args){
      B b = new B();
   }
}
```

- A. 6
- B. 0
- C. Compilation fails due to an error on lines 3
- D. Compilation fails due to an error on lines 4

What is the output for the below code? * 2/2

```
public class Outer {
private int a = 7;
      class Inner {
       public void displayValue() {
         System.out.println("Value of a is " + a);
       }
     }
  }
public class Test {
     public static void main(String... args) throws Exception {
      Outer mo = new Outer();
       Outer.Inner inner = mo.new Inner();
        inner.displayValue();
  }
 }
```

- (●) A)Value of a is 7
- ( ) B)Compile Error - not able to access private member.
- ( ) C)Runtime Exception
- ( ) D)Value of a is 8

Choose the correct option based on this program: * 3/3

```
public class StringCompare {
    public static void main(String args[]) {
        BiFunction < String, String, Boolean > compareString = (x, y) - >
            x.equals(y);
        System.out.println(compareString.apply("Java8", "Java8")); // #1
    }
}
```

- ○ This program results in a compiler error in the line marked with #1
- ◉ This program prints: true
- ○ This program prints: false
- ○ This program prints: (x, y) -> x.equals(y)
- ○ This program prints: ("Java8", "Java8") -> "Java8".equals("Java8")

How many String objects created from the above code ? * 0/2

```
Given:
public class StrObjTest{
public static void main(String[] args){
    String s1="Welcome";
    String s=new String("WelcomeNew");
  }
}
```

- ○ A. 3
- ◉ B. 2
- ○ C. 4
- ○ D. 5

What is the result? * 0/2

```
public interface AInf {
 String toString();
}
public class B {
 public static void main(String[] args){
  System.out.println(new AInf() {
    public String toString() {
        return "success"; }
    });
  }
}
```

- (●) A. Compilation of class B will fail because of an error in line 3.
- ( ) B. Compilation of class B will fail because of an error in line 4.
- ( ) C. success
- ( ) D. throws Exception

How can we make sure main() is the last thread to finish in Java Program? * 2/2

- ( ) A. main();
- ( ) B. stop();
- ( ) C. start();
- ( ) D. run();
- (●) E. join();

What will be expected output? * 0/3

```
import java.util.concurrent.CompletableFuture;
import java.util.concurrent.ExecutionException;

public class _06HandlingErrors {

   public static void main(String[] args) throws ExecutionException, InterruptedException {
      String name = null;
      CompletableFuture<String> future1 = CompletableFuture.supplyAsync(() -> {
         if (name == null) {
            throw new RuntimeException("Computation error!");
         }
         return "Hello" +name;

      }).handle((s,t) -> s != null ? s : "Hello, Stranger!");
      System.out.println(future1.get());
   }
}
```

- ○ A. Hello, Stranger!
- ○ B. Hello BJIT
- ○ C. Hello yourname
- ◉ D. Computation error!

Given the code. What is the result after the class TryMe execution? * 3/3

What is the result after the class TryMe execution?

```
class A {
   public void doA() {
      B b = new B();
      b.dobB();
      System.out.print("doA");
   }
}
class B {
   public void dobB() {
      C c = new C();
      c.doC();
      System.out.print("doB");
   }
}
class C {
   public void doC() {
      if (true)
         throw new NullPointerException();
      System.out.print("doC");
   }
}
public class TryMe {

   public static void main(String args[]) {
      try {
         A a = new A();
         a.doA();
      } catch (Exception ex) {
         System.out.print("error");
      }
   }
}
```

- A) "doCdoBdoA" is printed
- B) "doAdoBdoC" is printed
- C) "doBdoAerror" is printed
- (●) D) "error" is printed

E) nothing is printed