

JJD290: Fast Track to Java 8 and OO Development – skill test

Full name: _____ Grade: _____

Q1 – What are *class variables*?

- a) *Class variables* are static variables within a class but outside any method.
- b) *Class variables* are variables defined inside methods, constructors or blocks.
- c) *Class variables* are variables within a class but outside any method.
- d) None of the above.

Q2 – A and E are classes

- B and D are interfaces
- C is an abstract class

Which ones are true? (Choose 3)

- a) class F implements B, C{...}
- b) class F implements B{...}
- c) class F extends A, E{...}
- d) class F extends E{...}
- e) class F implements B, D{...}

Q3 – Choose the three legal identifiers.

- a) 1stName
- b) _4_
- c) @name
- d) \$
- e) getSize

Q4 – Given:

```
public class Calculator {
    int num = 100;
    public void calc(int num) {
        this.num = num * 10;
    }
    public void printNum(){
        System.out.println(num);
    }

    Public static void main(String[] args) {
        Calculator obj = new Calculator ();
        obj.calc(2);
        obj.printNum();
    }
}
```

What is the result?

- a) 20
- b) 100
- c) 1000
- d) 2

Q5 – What is the size of **byte** variable?

- a) 8 bit
- b) 16 bit
- c) 32 bit
- d) 64 bit

Q6 – Given:

```
public class MyLoop {
    public static void main(String[] args) {
        String[] sa = {"tom ", "jerry "};
        for (int x = 0; x < 3; x++) {
            for (String s : sa) {
                System.out.print(x + " " + s);
                if (x == 1) {
                    break;
                }
            }
        }
    }
}
```

What is the result?

- a) 0 tom 0 jerry 1 tom 1 jerry
- b) 0 tom 0 jerry 2 tom 2 jerry
- c) 0 tom 0 jerry 1 tom 2 tom 2 jerry
- d) 0 tom 0 jerry 1 tom 1 jerry 2 tom 2 jerry

Q7 – Given:

```
class Alpha {
    String getType() {
        return "alpha";
    }
}
class Beta extends Alpha {
    String getType() {
        return "beta";
    }
}
public class Gamma extends Beta {
    String getType() {
        return "gamma";
    }
    public static void main(String[] args) {
        Gamma g1 = new Alpha();
        Gamma g2 = new Beta();
        System.out.println(g1.getType() + " " + g2.getType());
    }
}
```

What is the result?

- a) alpha beta
- b) beta beta
- c) gamma gamma
- d) Compilation fails.

Q8 – Inheritance represents

- a) HAS-A relationship.
- b) IS-A relationship.

Q9 – What is correct syntax for *main* method of a java class?

- a) public static int main(String[] args)
- b) public int main(String[] args)
- c) public static void main(String[] args)
- d) None of the above.

Q10 – Which of the following stands true about `default` modifier of class members?

- a) By default, variables, methods and constructors can be accessed by subclass only.
- b) By default, variables, methods and constructors can be accessed by any class lying in any package.
- c) By default, variables, methods and constructors can be accessed by any class lying in the same package.
- d) None of the above.

Q11 – What is *Encapsulation*?

- a) *Encapsulation* is a technique to define different methods of same type.
- b) *Encapsulation* is the ability of an object to take on many forms.
- c) *Encapsulation* is the technique of making the fields in a class `private` and providing access to the fields via `public` methods.
- d) None of the above.

Q12 – Can constructors be inherited?

- a) True.
- b) False.

Q13 – What is the default value of float variable?

- a) `0.0d`
- b) `0.0f`
- c) `0`
- d) not defined

Q14 – What is *local variable*?

- a) Variables defined inside methods, constructors or blocks are called *local variables*.
- b) Variables defined outside methods, constructors or blocks are called *local variables*.
- c) Static variables defined outside methods, constructors or blocks are called *local variables*.
- d) None of the above.

Q15 – What is the default value of Object variable?

- b) `0`
- c) `null`
- d) not defined

Q16 – Which of the following statements best represents *polymorphism*?

- a) `ParentClass parentClassName = new ParentClassConstructor();`
- b) `ChildClass childClassName = new ParentClassConstructor();`
- c) `ParentClass parentClassName = new ChildClassConstructor();`
- d) `ChildClass childClassName = new ChildClassConstructor();`
- e) None of the above.

Q17 – Which of the following is true about *protected* access modifier?

- a) Variables, methods and constructors which are declared `protected` can be accessed by any class.
- b) Variables, methods and constructors which are declared `protected` can be accessed by any class lying in same package.
- c) Variables, methods and constructors which are declared `protected` in the superclass can be accessed only by its child class.
- d) None of the above.

Q18 – Which of the following is true about *private* access modifier?

- a) Variables, methods and constructors which are declared `private` can be accessed only by the members of the same class.
- b) Variables, methods and constructors which are declared `private` can be accessed by any class lying in same package.
- c) Variables, methods and constructors which are declared `private` in the superclass can be accessed only by its child class.
- d) None of the above.

Q19 – What is true about a `final` class?

- a) A class declared `final` is a final class.
- b) Final classes are created so the methods implemented by that class cannot be overridden.
- c) It cannot be inherited.
- d) All of the above.

Q20 – What is an *Interface*?

- a) An *interface* is a collection of abstract methods.
- b) An *interface* is an abstract class.
- c) An *interface* is a concrete class.
- d) None of the above.

Q21 – What is *inheritance*?

- a) It is the process where one object acquires the properties of another.
- b) Inheritance is the ability of an object to take on many forms.
- c) Inheritance is a technique to define different methods of same type.

Q22 – What is *NullPointerException*?

- a) A `NullPointerException` is thrown when calling the instance method of a null object or modifying/accessing field of a null object.
- b) A `NullPointerException` is thrown when object is set as null.
- c) A `NullPointerException` is thrown when object property is set as null.

Q23 – Which of the following is FALSE about the `String` type?

- a) `String` is immutable.
- b) `String` can be created using new operator.
- c) `String` is a primary data type.
- d) None of the above.

Q24 – What is the *JRE*?

- a) JRE is a java based Graphical User Interface (GUI) application.
- b) JRE is an application development framework.
- c) JRE is an implementation of the Java Virtual Machine which executes Java programs.
- d) None of the above.

Q25 – What are *instance variables*?

- a) *Instance variables* are static variables within a class but outside any method.
- b) *Instance variables* are variables defined inside methods, constructors or blocks.
- c) *Instance variables* are variables within a class but outside any method.
- d) None of the above.