

الإسم الرقم

أجب عن جميع الأسئلة

ورقة الإمتحان تشتمل على عدد 6 صفحات

Question one

Fill in the gaps by suitable word(s):

- 1) is the ability of one method name to work appropriately for different subclasses of a parent class.
- 2) is one from which you cannot create any concrete objects, but from which you can inherit.
- 3) is an object-oriented technique for managing errors.
- 4) program contains two or more parts that can run concurrently.
- 5) is the concept of keeping data private.
- 6) is a mechanism that enables one class to inherit, or assume, both the behavior and the attributes of another class.
- 7) classes are nonabstract classes from which objects can be instantiated.
- 8) is the technique of using the same method name to indicate different implementations.
- 9) is a graphical language used by programmers and analysts to describe classes and object-oriented processes.
- 10) are those that a programmer should plan for and from which a program should be able to recover.

Question Two:

Write the character (T) behind the correct sentence and the character (F) behind the false sentence:

- 1) You place *.class* files in a package so other programmers can import them into their () programs.
- 2) If Parent is a parent class and Child is its child, then you can assign a Child object to a () Parent reference.
- 3) A program executes a constructed Thread by invoking the Thread's method *run()*. ()
- 4) If you write a method with a throws clause for a checked exception in the header, then () any method that uses your method must catch and handle the possible exception.
- 5) The Object class *toString()* and *equals()* methods are abstract. ()
- 6) When you use inheritance in Java, you can create a new class that contains all the data () and methods of an existing class.
- 7) A subclass inherits all the data and methods of its superclass, except the private ones. ()
- 8) When you sort objects, you usually want to sort based on a particular object field. ()
- 9) Java supports multiple inheritance for classes but only single inheritance for interfaces. ()
- 10) Any child class object has all the attributes of its parent, and all of those attributes directly () accessible.

Question Three:

Draw a circle on the best answer

- 1) All Java Exceptions are
 - a. Error
 - b. RuntimeException
 - c. Throwable
 - d. Omission
- 2) Which of the following statements is true?
 - a. Superclass objects are members of their subclass.
 - b. Superclasses can contain abstract methods.
 - c. You can create an abstract class object using the new operator.
 - d. An abstract class cannot contain an abstract method.
- 3) If you include three statements in a try block and follow the block with three catch blocks, and the second statement in the try block throws an Exception, then.....
 - a. the first catch block executes.
 - b. the first two catch blocks execute.
 - c. only the second catch block executes.
 - d. the first matching catch block executes.
- 4) Parent classes are than their child classes.
 - a. less specific
 - b. more specific
 - c. easier to understand
 - d. more cryptic
- 5) In the following statements which is a Disadvantage of Java Array?
 - a. An array can hold primitive types data
 - b. An array has its size that is known as array length
 - c. An array knows only its type that it contains. Array type is checked at the compile-time
 - d. An array holds only one type of data

- 6) You can get a list of the methods through which an Exception has traveled by using the method.
- a. getMessage()
 - b. callStack()
 - c. getPath()
 - d. printStackTrace()
- 7) Which of the following is true regarding inheritance?
- a. A superclass can force a programmer to override a method in any subclass it creates.
 - b. When creating a subclass, no methods of a superclass can be overridden.
 - c. A superclass cannot force a programmer to override a method in any subclass it creates.
 - d. When creating a subclass, all methods of the superclass must be overridden.
- 8) Which of the following statements is true?
- a. A child class inherits from a parent class.
 - b. A parent class inherits from a child class.
 - c. Both of the a and b are true.
 - d. Not of all are true.
- 9) When you want to provide some data or methods that subclasses can inherit, but you want the subclasses to override some specific methods, you should write a(n)
- a. abstract class.
 - b. interface.
 - c. final superclass.
 - d. concrete object.
- 10) Which method waits for a thread to die?
- a. stop()
 - b. start()
 - c. terminate()
 - d. join()

QuestionFour:

A) Answer the following questions:

1) How can you use this() and super() both in the same constructor?

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2) Why the interface data fields must not be private?

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3) Why many programmers consider multiple inheritance to be a difficult concept?

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4) How you can decide when to create an abstract superclass and when to create an interface?

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5) Can you use abstract and final both with a method?

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B) Read the following scenarios, and then write Java code to represent them:

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1) Unreachable statements are program statements that can never execute under any circumstances.

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2) Sometimes, however, the superclass data fields and methods are not entirely appropriate for the subclass objects; in these cases, you want to override the parent class members

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3) When you use a class as a superclass and the class has only constructors that require arguments, you must be certain that any subclasses provide the superclass constructor with the arguments it needs.

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