01

Given the code. What is the result?

**class** Small {  
    **public** Small() {  
        System.out.print("a ");  
        **super**();  
    }  
}  
  
**class** Small2 **extends** Small {  
    **public** Small2() {  
        System.out.print("b ");  
        **super**();  
    }  
}  
  
**class** Small3 **extends** Small2 {  
    **public** Small3() {  
        System.out.print("c ");  
        **super**();  
    }  
}  
  
**public** **class** Test {       
    **public** **static** void main(String args[]) {  
        **new** Small3();  
    }  
}

 A) a

 B) c

 C) a b c

 D) c b a

 E) compilation fails.

 F) The code runs without output.

02

Given the code. What is the result?

**public** **class** EmptyStringsTest {  
    **public** **static** boolean isEmpty(String s[) {  
        **return** (s == null | s.length() == 0);  
    }  
  
    **public** **static** void main(String args[]) {  
        **if** (isEmpty(null)) {  
            System.out.print("empty ");  
        } **else** {  
            System.out.print("not\_empty ");  
        }  
    }  
}

 A) "empty" is printed

 B) "not\_empty" is printed

 C) Compilation fails

 D) An exception is thrown at runtime

03

Given the code. 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

04

Give the code. What is the result?

**class** Hotel {  
    **public** int bookings;  
    **public** void book() {  
        bookings++;  
    }  
}  
  
**public** **class** SuperHotel **extends** Hotel {  
    **public** void book() {  
        bookings--;  
    }  
      
    **public** void book(int size) {  
        book();  
        **super**.book();  
        bookings += size;  
    }  
      
    **public** **static** void main(String args[]) {  
        SuperHotel hotel = **new** SuperHotel();  
        hotel.book(2);  
        System.out.print(hotel.bookings);  
    }  
}

 A) Compilation fails.

 B) An exception is thrown at runtime.

 C) 0

 D) 1

 E) 2

 F) -1

05

Given the code. What is the result?

1.      int i = 10;  
2.      **while** (i++ <= 10) {  
3.          i++;  
4.      }  
5.      System.out.print(i);

 A) 10

 B) 11

 C) 12

 D) 13

 E) Line 5 will be never reached.

06

Given the code. What is the result?

1.  **public** **static** void main(String args[]) {  
2.      Object myObj = **new** String[]{"one", "two", "three"} {  
3.          **for** (String s : (String[])myObj) System.out.print(s + ".");  
4.      }  
5.  }

 A) one.two.three.

 B) Compilation fails because of an error at line 2

 C) Compilation fails because of an error at line 3

 D) An exception is thrown at runtime.

07

Given the code. What is the result?

**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

08

Given the code. What is the output?

**public** **class** Test {       
    int a = 10;  
      
    **public** void doStuff(int a) {  
        a += 1;  
        System.out.println(++a);  
    }  
    **public** **static** void main(String args[]) {  
        Test t = **new** Test();  
        t.doStuff(3);  
    }  
}

 A) 4

 B) 5

 C) 12

 D) 11

10

Which code, inserted inserted at line labeled "//some code goes her", allows the class Test to be compiled?

**class** Util {  
    **public** enum State{ACTIVE, DELETED, INACTIVE}  
}  
  
**public** **class** Test {       
    **public** **static** void main(String args[]) {  
        //some code goes here         
    }  
}

 A) State state = State.INACTIVE;

 B) State state = INACTIVE;

 C) Util.State state = Util.State.INACTIVE;

 D) State state = Util.INACTIVE;

11

Given the code. Which statements are true? (Select two)

**public** **class** Hotel {           
  
        **public** **static** void book() {  
                //some code goes here  
        }  
          
        **public** void cancelBooking() {  
                //some code goes here  
        }         
}

 A) Method book() can directly call method cancelBooking()

 B) Method cancelBooking() can directly call method book()

 C) Hotel.book() is a valid invocation of book()

 D) Hotel.cancelBooking() is a valid invocation of cancelBooking()

12

Given the exhibit. What is the result?

**public** **class** Hotel {  
      
    **public** **static** void book(short a) {  
        System.out.print("short ");  
    }  
      
    **public** **static** void book(Short a) {  
        System.out.print("SHORT ");  
    }  
      
    **public** **static** void book(Long a) {  
        System.out.print("LONG ");  
    }  
      
    **public** **static** void main(String[] args) {  
        short shortRoom = 1;  
        int intRoom = 2;  
          
        book(shortRoom);  
        book(intRoom);  
    }  
}

 A) SHORT LONG

 B) short LONG

 C) Compilation fails

 D) An exception is thrown at runtime

13

What do you need to do to correct compilation errors? (Select two)

**public** **class** Creature {  
    **private** int legCount;  
    **private** int wingCount;  
      
    **public** Creature(int legCount) {  
        **this**.legCount = **this**.legCount;  
        **this**.wingCount = 0;  
    }  
      
    **public** String toString() {  
        **return** "legs=" + **this**.legCount + " wings=" + wingCount;  
    }  
}  
  
**public** **class** Animal **extends** Creature {  
    **public** Animal(int legCount) {  
        **this**.wingCount = 0;  
    }  
  
}

 A) insert a call to super() into Creature constructor.

 B) insert a call to super() into Animal constructor.

 C) insert a call to this() into Animal constructor.

 D) insert a call to super(legCount) into Animal constructor.

 E) change the wingCount variable in the class Creature to protected.

 F) change the string "this.wingCount = 0" in the class Animal to "super.wingCount = 0"

14

What can directly access and change the value of the variable roomNr?

**package** com.mycompany;  
  
**public** **class** Hotel  {  
    **private** int roomNr = 100;  
}

 A) Only the Hotel class.

 B) Any class.

 C) Any class in com.mycompany package.

 D) Any class that extends Hotel.

15

Given the code. What is the result?

1.      int i = 10;  
2.      **while** (++i <= 10) {  
3.          i++;  
4.      }  
5.      System.out.print(i);

 A) 10

 B) 11

 C) 12

 D) Line 5 will be never reached.

16

Given the code. What is the result?

String test = "This is a test string";  
String[] tokens = test.split("\\s");  
System.out.println(tokens.length);

 A) 0

 B) 5

 C) 21

 D) Compilation fails

 E) An exception is thrown at runtime

17

Given the code. What is the result?

**public** **class** Test {   
    **private** **static** void doStuff(String str) {  
        int var = 4;  
        **if** (var == str.length()) {  
            System.out.print(str.charAt(var--) + " ");  
        }  
        **else** {  
            System.out.print(str.charAt(0) + " ");  
        }  
    }  
    **public** **static** void main(String args[]) {  
        doStuff("abcd");  
        doStuff("efg");  
        doStuff("hi");  
    }  
}

 A) Compilation fails.

 B) An exception is thrown at runtime.

 C) d e h

 D) d f i

 E) c f i

 F) c e h

18

Given two classes defined in two different files. What is required at line marked "//some code goes here" to process the method doStuff() of a class A?

// The first file  
**package** pack1;  
  
**public** **class** ClassA {  
    **public** **static** void doStuff() {  
        System.out.println("doStuff");  
    }  
}  
// The second file  
**package** pack2;  
  
**public** **class** ClassB {  
    **public** **static** void main(String args[]) {  
        //some code goes here  
    }  
}

 A) ClassA.doStuff();

 B) pack1.ClassA.doStuff();

 C) doStuff();

 D) It is impossible to use the method doStuff() in the class B.

 E) import pack1.A.\*; doStuff();

19

A developer is creating a class A, that needs to access a class B. The B class is deployed in a jar named superLib.jar. Which three, will allow the developer to use the B class while compiling the A class. (choose three)

 A) The jar file is located at /myfolder/superLib.jar and the A class is compiled using "javac -classpath /myfolder/superLib.jar A.java"

 B) The jar file is located at /myfolder/superLib.jar and the A class is compiled using "javac -d /myfolder/superLib.jar A.java"

 C) The jar file is located at /myfolder/superLib.jar and the A class is compiled using "javac -cp /myfolder/superLib.jar/B A.java"

 D) The jar file is locate at /myfolder/superLib.jar and a classpath environment variable is set that includes /myfolder/superLib.jar

 E) The jar file is located at /myfolder/superLib.jar and a classpath environment variable is set that includes /myfolder/superLib.jar/B.class

 F) The jar file is located at $JAVA\_HOME/jre/lib/ext/superLib.jar

 G) The jar file is located at $JAVA\_HOME/jre/classes/superLib.jar

20

A Java bean component has the following field:   
private boolean done;  
Which method declarations follow the JavaBean standards for getting/settings this field? (Choose 3)

 A) public void setDone(boolean done)

 B) public boolean setDone(boolean done)

 C) private boolean setDone(boolean done)

 D) public void setDone()

 E) public boolean getDone()

 F) public boolean isDone()

 G) public boolean getDone(boolean done)

 H) public void isDone()

21

Given the code. What is the result?

**import** java.util.HashSet;  
  
**public** **class** HashTest {  
      
    **private** String str;  
      
    **public** HashTest(String str) {  
        **this**.str = str;  
    }  
          
    @Override  
    **public** int hashCode() {               
        **return** **this**.str.hashCode();  
    }  
      
    @Override  
    **public** boolean equals(Object obj) {   
        **return** **this**.str.equals(obj);  
    }  
      
    **public** **static** void main(String args[]) {  
        HashTest h1 = **new** HashTest("1");  
        HashTest h2 = **new** HashTest("1");  
        String s1 = **new** String("2");  
        String s2 = **new** String("2");  
          
        HashSet<Object> hs = **new** HashSet<Object>();  
        hs.add(h1);  
        hs.add(h2);  
        hs.add(s1);  
        hs.add(s2);  
          
        System.out.print(hs.size());  
    }  
}

 A) "4" is printed.

 B) "3" is printed.

 C) "2" is printed.

 D) Compilation fails.

 E) An exception is thrown at runtime.

22

Given the code. What is the output?

**public** **class** Test {       
    int a = 10;  
      
    **public** void doStuff(int a) {  
        a += 1;  
        System.out.println(a++);  
    }  
    **public** **static** void main(String args[]) {  
        Test t = **new** Test();  
        t.doStuff(3);  
    }  
}

 A) 11

 B) 12

 C) 4

 D) 5

23

Given the code. What is the output?

**public** **class** Hotel {  
    **private** int roomNr;  
      
    **public** Hotel(int roomNr) {  
        **this**.roomNr = roomNr;  
    }  
      
    **public** int getRoomNr() {  
        **return** **this**.roomNr;  
    }  
      
    **static** Hotel doStuff(Hotel hotel) {  
        hotel = **new** Hotel(1);  
        **return** hotel;  
    }  
      
    **public** **static** void main(String args[]) {  
        Hotel h1 = **new** Hotel(100);  
        System.out.print(h1.getRoomNr() + " ");  
        Hotel h2 = doStuff(h1);  
        System.out.print(h1.getRoomNr() + " ");  
        System.out.print(h2.getRoomNr() + " ");  
        h1 = doStuff(h2);  
        System.out.print(h1.getRoomNr() + " ");  
        System.out.print(h2.getRoomNr() + " ");  
    }  
}

 A) 100 1 1 1 1

 B) 100 100 1 1 1

 C) 100 100 100 1 1

 D) 100 100 100 100 1

 E) 100 100 100 100 100

24

Given the code. What is the result?

**public** **class** Test {   
    **private** **static** void doStuff(String str) {  
        int var = 4;  
        **if** (var == str.length()) {  
            System.out.print(str.charAt(--var) + " ");  
        }  
        **else** {  
            System.out.print(str.charAt(0) + " ");  
        }  
    }  
    **public** **static** void main(String args[]) {  
        doStuff("abcd");  
        doStuff("efg");  
        doStuff("hi");  
    }  
}

 A) Compilation fails.

 B) An exception is thrown at runtime.

 C) d e h

 D) d f i

 E) c f i

 F) c e h

25

What is true? (Choose three)

 A) A method with the same signature as a private final method in class Z can be implemented in a subclass of Z.

 B) A final method in class Z can be abstract if and only if Z is abstract.

 C) A protected method in class Z can be overriden by any subclass of Z.

 D) A private static method can be called only within other static methods in class Z.

 E) A non-static public final method in class Z can be overriden in any subclass of Z.

 F) A public static method in class Z can be called by a subclass of Z without explicitly referencing the class Z.

26

What should be called after the code below to suggest that the JVM expend effort toward recycling the memory used by the object a? (Select two)

BigObject a = MyFactory.createBigObject();  
a.doStuff();  
a = null;

 A) System.gc()

 B) Runtime.gc()

 C) System.freeMemory()

 D) Runtime.getRuntime().freeMemory()

 E) Runtime.getRuntime().gc()

27

Given the code. What is the result?

**public** **class** SomeClass {  
    **private** int value = 1;  
      
    **public** int getValue() {  
        **return** value;  
    }  
      
    **public** void changeVal(int value) {  
        value = value;  
    }  
  
    **public** **static** void main(String args[]) {  
        int a = 2;  
        SomeClass c = **new** SomeClass();  
        c.changeVal(a);  
        System.out.print(c.getValue());  
    }  
}

 A) "1" is printed

 B) "2" is printed

 C) Compilation fails

 D) An exception is thrown at runtime

28

What can directly access and change the value of the variable roomNr?

**package** com.mycompany;  
  
**public** **class** Hotel  {  
    **public** int roomNr = 100;  
}

 A) Only the Hotel class.

 B) Any class.

 C) Any class in com.mycompany package.

 D) Any class that extends Hotel.

29

Given the code. What is the result?

**class** Hotel {  
    **public** int bookings;  
    **public** void book() {  
        bookings++;  
    }  
}  
  
**public** **class** SuperHotel **extends** Hotel {  
    **public** void book() {  
        bookings--;  
    }  
      
    **public** void book(int size) {  
        book();  
        **super**.book();  
        bookings += size;  
    }  
      
    **public** **static** void main(String args[]) {  
        Hotel hotel = **new** SuperHotel();  
        hotel.book(2);  
        System.out.print(hotel.bookings);  
    }  
}

 A) Compilation fails.

 B) An exception is thrown at runtime.

 C) 0

 D) 1

 E) 2

 F) -1

30

Given the code. What is the result when this program is executed?

**public** **class** SuperHotel {  
    **static** int x[];  
      
    **static** {  
        x[0] = 1;  
    }  
      
    **public** **static** void main(String args[]) {          
    }     
}

 A) ArrayIndexOutOfBoundsException is thrown

 B) ExceptionInInitializerError is thrown

 C) IllegalStateException is thrown

 D) StackOverflowException is thrown

31

Given the code. What is the result?

**public** **class** SomeClass {  
    **private** int value = 1;  
      
    **public** void printVal(int value) {  
        System.out.print(value);  
    }  
  
    **public** **static** void main(String args[]) {  
        int a = 2;  
        SomeClass c = **new** SomeClass();  
        c.printVal(a);  
    }  
}

 A) "1" is printed

 B) "2" is printed

 C) Compilation fails

 D) An exception is thrown at runtime

32

Given the code. What is the result?

**public** **static** void main(String args[]) {  
        **try** {  
            String arr[] = **new** String[10];  
            arr = null;  
            arr[0] = "one";  
            System.out.print(arr[0]);  
        } **catch**(NullPointerException nex) {   
            System.out.print("null pointer exception");   
        } **catch**(Exception ex) {  
            System.out.print("exception");  
        }  
    }

 A) "one" is printed.

 B) "exception" is printed.

 C) "null pointer exception" is printed.

 D) Compilation fails.

33

Given the code. What is the result?

**public** **static** void main(String args[]) {  
        **try** {  
            String arr[] = **new** String[10];  
            arr = null;  
            arr[0] = "one";  
            System.out.print(arr[0]);  
        } **catch**(Exception ex) {  
            System.out.print("exception");  
        } **catch**(NullPointerException nex) {  
            System.out.print("null pointer exception");  
        }     
    }

 A) "one" is printed.

 B) "exception" is printed.

 C) "null pointer exception" is printed.

 D) Compilation fails.

34

Given the code. What is the result?

**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();  
        Car c = (Car) v;  
          
        v.printSound();  
        c.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

35

Given the code. What is true?

**public** **class** Room {  
    **public** int roomNr;  
    **private** Date beginDtm;  
    **private** Date endDttm;  
      
    **public** void book(int roomNr, Date beginDttm, Date endDttm) {  
        **this**.roomNr = roomNr;  
        **this**.beginDtm = beginDttm;  
        **this**.endDttm = endDttm;  
    }  
}

 A) The code demonstrates polymorphism.

 B) The class is fully encapsulated.

 C) The variable roomNr breaks encapsulation.

 D) Variables beginDttm and endDttm break polymorphism.

 E) The method book breaks encapsulation.

36

What is true about has-a and is-a relationships? (Choose two)

 A) Instance variables can be used when creating a has-a relationship.

 B) Inheritance represents an is-a relationship.

 C) Inheritance represents a has-a relationship.

 D) Instances must be used when creating a has-a relationship.

37

Given the code. What is the result?

1   **public** **class** TryMe {  
2       Integer A;  
3       int a;  
4       **public** TryMe(int a) {  
5           **this**.a = A + a;  
6           System.out.print(**this**.a);  
7       }  
8       **public** **static** void main(String args[]) {          
9           Integer A = **new** Integer(1);  
10          TryMe t = **new** TryMe(A);  
11      }  
12  }

 A) The value "1" is printed

 B) Compilation fails because of an error in line 5

 C) A NullPointerException occurs at runtime

 D) A NumberFormatException occurs at runtime

 E) An IllegalStateExcepition occurs at runtime

38

Given the code. What is the output?

1.  **public** **static** void main(String args[]) {  
2.      Object myObj = **new** String[]{"one", "two", "three"};{  
3.          **for** (String s : (String[])myObj) System.out.print(s + ".");  
4.      }  
5.  }

 A) one.two.three.

 B) Compilation fails because of an error at line 2

 C) Compilation fails because of an error at line 3

 D) An exception is thrown at runtime.

39

Given the code. What is the result?

String test = "This is a test string";  
String[] tokens = test.split("\s");  
System.out.println(tokens.length);

 A) 0

 B) 5

 C) 21

 D) Compilation fails

 E) An exception is thrown at runtime