Question #1 Topic 1

Given:  
class Product {

    double price;

}

public class Test {

    public void updatePrice(Product product, double price) {

        price = price \* 2;

        product.price = product.price + price;

    }

    public static void main(String[] args) {

        Product prt = new Product();

        prt.price = 200;

        double newPrice = 100;

        Test t = new Test();

        t.updatePrice(prt, newPrice);

        System.out.println(prt.price + " : " + newPrice);

    }

}

What is the result?

* A. 200.0 : 100.0
* B. 400.0 : 200.0
* C. 400.0 : 100.0
* D. Compilation fails.

Question #2 Topic 1

Which statement is true about the switch statement?

* A. It must contain the default section.
* B. The break statement, at the end of each case block, is optional.
* C. Its case label literals can be changed at runtime.
* D. Its expression must evaluate to a collection of values.

Question #3

Given the code fragment:

public static void main (String[] args) {

String date = LocalDate.parse ("2014-05-04").format (DateTimeFormatter.ISO\_DATE\_TIME) ;

System.out.println(date);

What is the result?

* A. May 04, 2014T00:00:00.000
* B. 2014-05-04T00:00: 00.000
* C. 5/4/14T00:00:00.000
* D. An exception is thrown at runtime.

Question #4 Topic 1

Given the code fragment:

public class Question\_4 {

    public static void main (String[] args) {

        Short s1 = 200;

        Integer s2 = 400;

        Long s3 = (long) s1 + s2; //line n1

        String s4 = (String) (s3 \* s2); //line n2

        System. out. println ("Sum is " + s3);

}

}

What is the result?

* A. Sum is 600
* B. Compilation fails at line n1.
* C. Compilation fails at line n2.
* D. A ClassCastException is thrown at line n1.
* E. A ClassCastException is thrown at line n2.

Question #5 Topic 1

What is the name of the Java concept that uses access modifiers to protect variables and hide them within a class?

* A. Encapsulation
* B. Inheritance
* C. Abstraction
* D. Instantiation
* E. Polymorphism

Question #6 Topic 1

Given the code fragment:

    abstract class Planet {

        protected void revolve() { //line n1

        }

        abstract void rotate(); //line n2

    }

    class Earth extends Planet{

        void revolve () { //line n3

        }

        protected void rotate () { //line n4

        }

    }

Which two modifications, made independently, enable the code to compile? (Choose two.)

* A. Make the method at line n1 public.
* B. Make the method at line n2 public.
* C. Make the method at line n3 public.
* D. Make the method at line n3 protected.
* E. Make the method at line n4 public.

Question #7 Topic 1

Given:

    class Vehicle {

        String type = "4W";

        int maxSpeed = 100;

        Vehicle(String type, int maxSpeed) {

            this.type = type;

            this.maxSpeed = maxSpeed;

        }

        Vehicle() {

        }

    }

    class Car extends Vehicle {

        String trans;

        Car(String trans) {

            this.trans = trans; // line n1

        }

        Car(String type, int maxspeed, String trans) {

            super(type, maxspeed); // line n2

            this.trans = trans;

        }

    }

And given the code fragment:

        Car c1 = new Car("Auto");

        Car c2 = new Car("4W", 150, "Manual");

        System.out.println(c1.type + " " + c1.maxSpeed + " " + c1.trans);

        System.out.println(c2.type + " " + c2.maxSpeed + " " + c2.trans);

What is the result?

A. 4W 100 Auto 4W 150 Manual

B. null 0 Auto 4W 150 Manual

C. Compilation fails only at line n1

D. Compilation fails only at line n2

E. Compilation fails at both line n1 and line n2

Question #8 Topic 1

Given:

    class Caller {

        private void init() {

            System.out.println("Initialized");

        }

        private void start() {

            init();

            System.out.println("Started");

        }

    }

    public class TestCall {

        public static void main(String[] args) {

            Caller c = new Caller();

            c.start(); // line n1

            c.init(); // line n2

        }

    }

What is the result?

* A. Compilation fails at line n1.
* B. Initialized Started Initialized
* C. Initialized Started
* D. Compilation fails at line n2.

Question #9 Topic 1

Given these two classes:  
Uma imagem com texto, captura de ecrã, Tipo de letra, documento

Descrição gerada automaticamente  
Any amount of electricity used by a customer (represented by an instance of the Customer class) must contribute to the customer's bill (represented by the member variable bill) through the useElectricity method.  
An instance of the Customer class should never be able to tamper with or decrease the value of the member variable bill.  
How should you write methods in the ElectricAccount class at line n1 so that the member variable bill is always equal to the value of the member variable kwh multiplied by the member variable rate?  
A.  
Uma imagem com texto, Tipo de letra, branco, captura de ecrã

Descrição gerada automaticamente  
B.  
Uma imagem com texto, Tipo de letra, recibo, captura de ecrã

Descrição gerada automaticamente  
C.  
Uma imagem com texto, Tipo de letra, recibo, captura de ecrã

Descrição gerada automaticamente  
D.  
Uma imagem com texto, Tipo de letra, captura de ecrã, branco

Descrição gerada automaticamente

Question #10 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        StringBuilder sb = new StringBuilder("Java");

        String s = "Java";

        if (sb.toString().equals(s.toString())) {

            System.out.println("Match 1");

        } else if (sb.equals(s)) {

            System.out.println("Match 2");

        } else {

            System.out.println("No Match");

        }

    }

What is the result?

* A. Match 1
* B. Match 2
* C. No Match
* D. A NullPointerException is thrown at runtime.

Question #11 Topic 1

Given:

interface Readable { public void readbook () ; public void setBookMark () ; abstract class Book implements Readable | // line n1 public void readbook () 1 ) // line n2 class EBook extends Book { public void readBook () { } // line n4 // line n3 }

And given the code fragment:  
Book book1 = new EBook();  
book1.readBook();  
Which option enables the code to compile?

A) Replace the code fragment at line n1 with: class Book implements Readable {

B) At line n2 insert: public abstract void setBookMark ();

C Replace the code fragment at line n3 with: abstract class EBook extends Book {

D) At line n4 insert: public void setBookMark () { }

* A. Option A
* B. Option B
* C. Option C
* D. Option D

Question #12 Topic 1

Given:

    public static void main(String[] args) {

        String ta = "A ";

        ta = ta.concat("B ");

        String tb = "C ";

        ta = ta.concat(tb);

        ta.replace('C', 'D');

        ta = ta.concat(tb);

        System.out.println(ta);

    }

What is the result?

* A. A B C D
* B. A C D
* C. A C D D
* D. A B D
* E. A B D C
* ?. ABCC is the correct

Question #13 Topic 1

Given:

    class CD {

        int r;

        CD(int r) {

            this.r = r;

        }

    }

    class DVD extends CD {

        int c;

        DVD(int r, int c) {

            super(r);

        }

    }

And given code fragment:  
DVD dvd = question.new DVD(10, 20);

Which code fragment should you use at line n1 to instantiate the dvd object successfully?

A)

super.r = r;

this. c = c;

B) super (r);

this (c);

C) super (r);

this.c = c;

D) this. c = r;

super (c) ;

* A. Option A
* B. Option B
* C. Option C
* D. Option D

Question #14 Topic 1

Given the code fragment:  
        int a[] = { 1, 2, 3, 4, 5 };

        for (XXX) {

            System.out.print(a[e]);

        }

Which option can replace xxx to enable the code to print 135?

A. int e= 0; e <= 4; e++

В. int e = 0; e < 5; e += 2

C. int e = 1; e <= 5; e += 1

D. int e = 1; e < 5; e+=2

Question #15 Topic 1

Which statement best describes encapsulation?

* A. Encapsulation ensures that classes can be designed so that only certain fields and methods of an object are accessible from other objects.
* B. Encapsulation ensures that classes can be designed so that their methods are inheritable.
* C. Encapsulation ensures that classes can be designed with some fields and methods declared as abstract.
* D. Encapsulation ensures that classes can be designed so that if a method has an argument MyType x, any subclass of MyType can be passed to that method.

Question #16

Given the code fragment from three files:

file SalesMan.java:

package sales;

public class SalesMan { }

file Product.java:

package sales. products;

public class Product { }

file Market.java:

package market;

// insert code here

public class USMarket {

SalesMan sm;

Product p; }

Which code fragment, when inserted at line 2, enables the code to compile?

1. import sales.\*;
2. import java.sales.products.\*;
3. import sales;

import sales.products;

1. import sales.\*;

import products.\*;

1. import sales.\*;

import sales.products.\*;

Question #17*Topic 1*

Given this class:  
public class CheckingAccount {

public int amount;

public CheckingAccount (int amount) {

this.amount = amount; }

public int getAmount() {

return amount; }

public void setAmount(int amount) {

this.amount = amount; }

public void changeAmount(int x) { amount += x; }

And given this main method, located in another class:  
  
public static void main(String[] args) {

CheckingAccount acct = new CheckingAccount((int)(Math.random()\*1000));

System.out.println(acct.getAmount());

}

Which three lines, when inserted independently at line n1, cause the program to print a 0 balance? (Choose three.)

* A. acct.setAmount(-acct.getAmount());
* B. acct.amount = 0;
* C. acct.setAmount(0);
* D. acct.getAmount() = 0;
* E. this.amount = 0;
* F. acct.changeAmount(0);
* G. acct.changeAmount(-acct.amount);

Question #18*Topic 1*

Given the code fragment:  
String shirts[][] = new String[2][2];

shirts[0][0] = "red";

shirts[0][1] = "blue";

shirts[1][0] = "small";

shirts[1][1] = "medium";

Which code fragment prints red:blue:small:medium?  
A.  
for (int index = 1; index < 2 ; index++) {

for (int idx = 1; idx < index ; idx++) {

System.out.print(shirts[index][idx] + ":" ); } }  
B.  
for (int index = 0; index < 2 ; ++index) {

for (int idx = 0; idx < index ; ++idx) {

System.out.print(shirts[index][idx] + ":" ); } }

C.  
for (String [] c : shirts) {

for (String s : c) {

System.out.print(s + ":"); } }

D.  
for (int index = 0; index <= 2; ) {

for (int idx = 0; idx <= 2; ) {

System.out.print(shirts[index][idx] + ":" );

idx++; }

index++; }

}

Question #19*Topic 1*

Given the code fragment:  
  
public class Test {

void readCard(int cardNo) throws Exception {

System.out.println("Reading Card");

}

void checkCard(int cardNo) throws RuntimeException { //line n1

System.out.println("Checking Card");

}

public static void main(String[] args) {

Test ex = new Test();

int cardNo = 12344;

ex.readCard(cardNo); //line n2

ex.checkCard(cardNo);} //line n3

}

What is the result?  
A. Reading Card

Checking Card  
B. Compilation fails only at line n1.  
C. Compilation fails only at line n2.  
D. Compilation fails only at line n3.  
E. Compilation fails at both line n2 and line n3.

Question #20*Topic 1*

Given the code fragment:

 3   public static void main (String[] args) {

 4       int x = 5;

 5       while (isAvailable (x)) {

 6       System. out. print (x) ;

 7

8       }

 9   }

10

 11   public static boolean isAvailable (int x){

 12       return x-- > 0 ? true : false;

 13   }

Which modification enables the code to print 54321?

* A. Replace line 6 with System.out. print (--x) ;
* B. At line 7, insert x --;
* C. Replace line 6 with --x; and, at line 7, insert System.out.print (x);
* D. Replace line 12 with return (x > 0) ? false: true;

Question #21*Topic 1*

Given the code fragment:

4    public static void main(String[] args) {

5        boolean opt = true;

6        switch (opt) {

7            case true:

8                System.out.print("True");

9                break;

            default:

                System.out.print("\*\*\*");

        }

        System.out.println("Done");

    }

Which modification enables the code fragment to print TrueDone?

* A. Replace line 5 With String opt = "true"; Replace line 7 with case "true":
* B. Replace line 5 with boolean opt = l; Replace line 7 with case 1:
* C. At line 9, remove the break statement.
* D. Remove the default section.

Question #22*Topic 1*

Given the following main method:

    public static void main(String[] args) {

        int num = 5;

        do {

            System.out.println(num-- + " ");

        } while (num == 0);

    }

What is the result?

* A. 5 4 3 2 1 0
* B. 5 4 3 2 1
* C. 4 2 1
* D. 5
* E. Nothing is printed

Question #23*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        int x = 100; // x = 103 ; a = 100 ; b = 102 ; c = 102 ;

        int a = x++;

        int b = ++x;

        int c = x++;

        int d = (a < b) ? (a < c) ? a: (b < c) ? b: c: x;

        System.out.println(d);

    }

What is the result?

* A. 100
* B. 101
* C. 102
* D. 103
* E. Compilation fails

Question #24*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        Short s1 = 200;

        Integer s2 = 400;

        String s3 = (String) (s1 + s2); //line n1

        Long s4 = (long) s1 + s2; //line n2

        System.out.println("Sum is " + s4);

    }

What is the result?

* A. Sum is 600
* B. Compilation fails at line n1.
* C. Compilation fails at line n2.
* D. A ClassCastException is thrown at line n1.
* E. A ClassCastException is thrown at line n2.

Question #25*Topic 1*

Given the code fragment:

public class Employee {

    String name;

    boolean contract;

    double salary;

    Employee(){

        //line n1

    }

    public String toString(){

        return name + ":" + contract + ":" + salary;

    }

    public static void main(String[] args) {

        Employee e = new Employee();

        //line n2

        System.out.println(e);

    }

}

Which two modifications, when made independently, enable the code to print joe:true: 100.0? (Choose two.)

A) Replace line n2 with:

e.name = "Joe";

e.contract = true;

e.salary = 100;

B) Replace line n2 with:

this. name = "Joe";

this. contract = true;

this.salary = 100;

C) Replace line n1 with:

this. name = new String ("Joe");

this.contract = new Boolean (true);

this.salary = new Double (100) ;

D) Replace line n1 with:

name = "Joe";

contract = TRUE;

salary = 100.0f;

E) Replace line n1 with:

this ("Joe", true, 100);

Question #26*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        List<String> names = new ArrayList<>();

        names.add("Robb");

        names.add("Bran");

        names.add("Rick");

        names.add("Bran");

        if (names.remove("Bran")) {

            names.remove("Jon");

        }

        System.out.println(names);

    }

What is the result?

* A. [Robb, Rick, Bran]
* B. [Robb, Rick]
* C. [Robb, Bran, Rick, Bran]
* D. An exception is thrown at runtime.

Question #27*Topic 1*

Given:  
class A {

public A() {

System.out.println("A ");

}}

class B extends A {

public B() {

System.out.println("B ");

}}

class C extends B {

public C() {

System.out.println("C ");

}

public static void main(String[] args) {

C c = new C();

}}  
What is the result?

* A. C B A
* B. C
* C. A B C
* D. Compilation fails at line n1 and line n2

Question #28*Topic 1*

Given:

public class X {

static int i;

int j;

public static void main(String[] args) {

X x1 = new X();

X x2 = new X();

x1.i = 3;

x1.j = 4;

x2.i = 5;

x2.j = 6;

System.out.println(x1.i + " " + x1.j + " " + x2.i + " " + x2.j);

}

}  
What is the result?

* A. 3 4 5 6
* B. 3 4 3 6
* C. 5 4 5 6
* D. 3 6 4 6

Question #29*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        /\* insert code here \*/

        array[0] = 10;

        array[1] = 20;

        System.out.print(array[0] + ":" + array[1]);

    }

Which code fragment, when inserted at line 3, enables the code to print 10:20?  
A.  
Int [] array = new int[1];  
B.  
Int[] array;

Array = new int[2];  
C.  
Int array = new int[2];  
D.  
Int array[1];

Question #30*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        String [] arr = {"A", "B" , "C", "D"};

        for(int i = 0;i<arr.length;i++)

        {

            System.out.println(arr[i] + " ");

            if (arr[i].equals("C")) {

                continue;

            }

            System.out.println("Work done");

            break;

        }

    }

What is the result?

* A. A B C Work done
* B. A B C D Work done
* C. A Work done
* D. Compilation fails

Question #31*Topic 1*

Which three are advantages of the Java exception mechanism? (Choose three.)

* A. Improves the program structure because the error handling code is separated from the normal program function
* B. Provides a set of standard exceptions that covers all possible errors
* C. Improves the program structure because the programmer can choose where to handle exceptions
* D. Improves the program structure because exceptions must be handled in the method in which they occurred
* E. Allows the creation of new exceptions that are customized to the particular program being created

Question #32*Topic 1*

Given the code from the Greeting.Java file:

    public static void main(String[] args) {

        System.out.println("Hello " + args[0]);

    }

Which set of commands prints Hello Duke in the console?

1. Javac Greeting

Java Greeting Duke

1. Javac Greeting.java Duke

Java Greeting

Pralix?

1. Javac Greeting.java

Java Greeting Duke

1. Javac Greeting.java

Java Greeting.class Duke

Question #33*Topic 1*

Given:

class Alpha {

    int ns;

    static int s;

    Alpha(int ns) { // constructor

        if (s < ns) {

            s = ns;

            this.ns = ns;

        }

    }

    void doPrint() {

        System.out.println("ns = " + ns + " s = " + s);

    }

}

And:  
    public static void main(String[] args) {

        Alpha ref1 = new Alpha(100);

        Alpha ref2 = new Alpha(50);

        Alpha ref3 = new Alpha(125);

        ref1.doPrint();

        ref2.doPrint();

        ref3.doPrint();

    }

What is the result?

1. ns = 100 s = 125

ns = 0 s = 125

ns = 125 s = 125

1. ns = 50 s = 125

ns = 125 s = 125

ns = 0 s = 125

1. ns = 50 s = 50

ns = 125 s = 125

ns = 100 s = 100

1. ns = 50 s = 50

ns = 125 s = 125

ns = 0 s = 125

Question #34*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        int ii = 0;

        int jj = 7;

        for (ii = 0; ii < jj - 1; ii = ii + 2) {

            System.out.print(ii + " ");

        }

    }

What is the result?

* A. 2 4
* B. 0 2 4 6
* C. 0 2 4
* D. Compilation fails

Question #35*Topic 1*

Given the code fragment:

        LocalDate date1 = LocalDate.now();

        LocalDate date2 = LocalDate.of(6, 20, 2014);

        LocalDate date3 = LocalDate.parse("2014-06-20", DateTimeFormatter.ISO\_DATE);

        System.out.println("date1 = " + date1);

        System.out.println("date2 = " + date2);

        System.out.println("date3 = " + date3);

Assume that the system date is June 20, 2014. What is the result?  
A.  
Uma imagem com texto, Tipo de letra, branco

Descrição gerada automaticamente  
B.  
Uma imagem com texto, Tipo de letra, branco

Descrição gerada automaticamente  
C. Compilation fails.  
D. An exception is thrown at runtime.

Question #36*Topic 1*

Given the code fragment:

    StringBuilder sb1 = new StringBuilder ("Duke") ;

    String strl = sb1. toString() ;

    // insert code here

    System. out. print (strl == str2);

Which code fragment, when inserted at line 9, enables the code to print true?

* A. String str2 = str1;
* B. String str2 = new String(str1);
* C. String str2 = sb1. toString();
* D. String str2 = "Duke";

Question #37*Topic 1*

Given:

public class Question\_37 {

    public static void main(String[] args) {

        Question\_37 ts = new Question\_37();

        System.out.print(isAvailable + " ");

        isAvailable = ts.doStuff();

        System.out.println(isAvailable);

    }

    public static boolean doStuff() {

        return !isAvailable;

    }

    static boolean isAvailable = false;

}

What is the result?

* A. Compilation fails.
* B. false true
* C. true false
* D. true true
* E. false false

Question #38*Topic 1*

Given the code fragment:

    public static void main(String[] args) {

        double discount = 0;

        int qty = Integer. parseInt (args [0]) ;

        //line n1;

    }

And given the requirements:  
✑ If the value of the qty variable is greater than or equal to 90, discount = 0.5  
✑ If the value of the qty variable is between 80 and 90, discount = 0.2  
Which two code fragments can be independently placed at line n1 to meet the requirements? (Choose two.)

1. if (qty >= 90) { discount = 0.5; }

if (qty > 80 && qty < 90) { discount = 0.2; }

1. discount = (qty >= 90) ? 0.5 : 0;

discount = (qty > 80) ? 0.2: 0;

1. discount = (qty >= 90) ? 0.5 : (qty > 80)? 0.2 : 0;
2. if (qty > 80 && qty < 90) {

discount = 0.2;

} else {

discount = 0;

}

if (qty >= 90) {

discount = 0.5;

} else {

discount = 0; }

1. discount = (qty > 80) ? 0.2: (qty >= 90) ? 0.5 : 0;

Question #39*Topic 1*

Given:

    public static void main(String[] args) {

        if (args[0].equals("Hello") ? true : false)

            System.out.println("Success");

        else

            System.out.println("Failure");

    }

And given the commands:

javac Test.java

Java Test Hello  
  
What is the result?

* A. Success
* B. Failure
* C. Compilation fails.
* D. An exception is thrown at runtime

Question #40*Topic 1*

Which three statements describe the object-oriented features of the Java language? (Choose three.)

* A. Objects can be reused.
* B. A subclass must override the methods from a superclass.
* C. Objects can share behaviors with other objects.
* D. A package must contain a main class.
* E. Object is the root class of all other objects.
* F. A main method must be declared in every class.

Question #41 Topic 1

Given the following code:

    public static void main(String[] args) {

        String[] planetStrings = { "Mercury", "Venus", "Erath", "Mars" };

        System.out.println(planetStrings.length);

        System.out.println(planetStrings[1].length());

    }

What is the output? ? 4 5

* A. 4
* B. 3
* C. 4
* D. 5
* E. 4
* F. 4

Question #42 Topic 1

You are developing a banking module. You have developed a class named ccMask that has a maskcc method.  
Given the code fragment:

    public static String maskCC(String creditCard) {

        String x = "XXXX-XXXX-XXXX-";

        // line n1

    }

    public static void main(String[] args) {

        System.out.println(maskCC("1234-5678-9101-1121"));

    }

You must ensure that the maskcc method returns a string that hides all digits of the credit card number except the four last digits (and the hyphens that separate each group of four digits).  
Which two code fragments should you use at line n1, independently, to achieve this requirement? (Choose two.)

1. StringBuilder sb = new StringBuilder (creditCard) ;

sb. substring (15, 19) ;

return x + sb;

1. return x + creditCard. substring (15, 19) ;
2. StringBuilder sb = new StringBuilder (x);

sb. append (creditCard, 15, 19) ;

return sb.toString () ;

1. StringBuilder sb = new StringBuilder (creditCard) ;

StringBuilder s = sb. insert (0, x);

return s.toString();

Question #43 Topic 1

Given:

Acc.java:

package p1;

public class Acc {

    int p;

    private int q;

    protected int r;

    public int s;

}

Test.java:

package p2;

import p1.Acc;

public class Test extends Acc {

    public static void main(String[] args) {

        Acc obj = new Test();

    }

}

Which statement is true?

* A. Both p and s are accessible via obj.
* B. Only s is accessible via obj.
* C. Both r and s are accessible via obj.
* D. p, r, and s are accessible via obj.

Question #44 Topic 1

Given:

public class Question\_44 {

    class Base {

        public void test() {

            System.out.println("Base ");

        }

    }

    class DerivedA extends Base {

        public void test() {

            System.out.println("DerivedA ");

        }

    }

    class DerivedB extends DerivedA {

        public void test() {

            System.out.println("DerivedB ");

        }

    }

    public static void main(String[] args) {

        Question\_44 x = new Question\_44();

        Base b1 = x.new DerivedB();

        Base b2 = x.new DerivedA();

        Base b3 = x.new DerivedB();

        b1 = (Base) b3;

        Base b4 = (DerivedA) b3;

        b1.test();

        b4.test();

        b2.test();

    }

}

What is the result?

* A. Base DerivedA
* B. Base DerivedB
* C. DerivedB DerivedB
* D. DerivedB DerivedA
* E. A ClassCastException is thrown at runtime.

Question #45 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        ArrayList myList = new ArrayList();

        String[] myArray;

        try {

            while (true){

                myList.add("My String");

            }

        } catch(RuntimeException re) {

            System.out.println("Caught a RuntineEyception");

        } catch(Exception e) {

            System.out.println("Caught an Exception");

        }

        System.out.println("Ready to use");

    }

What is the result?

* A. Execution terminates in the first catch statement, and Caught a RuntimeException is printed to the console.
* B. Execution terminates in the second catch statement, and Caught an Exception is printed to the console.
* C. A runtime error is thrown in the thread "main".
* D. Execution completes normally, and Ready to use is printed to the console.
* E. The code fails to compile because a throws keyword is required.

Question #46 Topic 1

Given:

        System.out.println("5 + 2 = " + 3 + 4);

        System.out.println("5 + 2 = " + (3 + 4));

What is the result?  
A) 5 + 2 = 34

5 + 2 = 34

B) 5 + 2 + 3 + 4

5 + 2 = 7

C) 7 = 7

7 + 7

D) 5 + 2 = 34

5 + 2 = 7

Question #47 Topic 1

Given the code fragments:  
Uma imagem com texto, captura de ecrã, Tipo de letra, documento

Descrição gerada automaticamente  
Which code fragment, when inserted at line n1, enables the code to print Hank?  
A.  
  
B.  
  
C.  
  
D.  


Question #48 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        String[][] arr = {{"A", "B", "C"},{"D", "E"}};

        for(int i = 0; i < arr.length; i++){

            for (int j = 0; j<arr[i].length; j++){

                System.out.print(arr[i][j] + " ");

                if(arr[i][j].equals("B")){

                    break;

                }

            }

            continue;

        }

    }

What is the result?

* A. A B C
* B. A B C D E
* C. A B D E
* D. Compilation fails.

Question #49 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        String str = " ";

        str.trim();

        System.out.println(str.equals("") + " " + str.isEmpty());

    }

What is the result?

* A. true true
* B. true false
* C. false false
* D. false true

Question #50 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        String str1 = "Java";

        String str2 = new String("java");

        //line n1

            System.out.println("Equal");

        } else {

            System.out.println("Not Equal");

        }

    }

Which code fragment, when inserted at line n1, enables the App class to print Equal?

* A. str1.toLowerCase(); if (str1 == str2)
* B. if (str2.equals(str1.toLowerCase()))
* C. str1.toLowerCase(); if (str1.equals(stre1.toLowerCase()))
* D. if (str1.toLowerCase() == str2.toLowerCase())

Question #51 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        int[] arr = { 1, 2, 3, 4 };

        int i = 0;

        do {

            System.out.print(arr[i] + " ");

            i++;

        } while (i < arr.length + 1);

    }

What is the result?

* A. 1 2 3 4 followed by an ArrayIndexOutOfBoundsException
* B. 1 2 3
* C. 1 2 3 4
* D. Compilation fails.

Question #52 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        String[] strs = new String[2];

        int idx = 0;

        for (String s : strs) {

            strs[idx].concat(" element " + idx);

            idx++;

        }

        for (idx = 0; idx < strs.length; idx++) {

            System.out.println(strs[idx]);

        }

    }

What is the result?

* A. Element 0 Element 1
* B. Null element 0 Null element 1
* C. Null Null
* D. A NullPointerException is thrown at runtime.

Question #53 Topic 1

Given:

    class Vehicle {

        int x;

        Vehicle() {

            this(10); //line n1

        }

        Vehicle(int x) {

            this.x=x;

        }

    }

    class Car extends Vehicle {

        int y;

        Car() {

            super();

            this(20); //line n2

        }

        Car(int y) {

            this.y = y;

        }

        public String toString() {

            return super.x+ ":" + this.y;

        }

    }

And given:  
          Vehicle y = new Car();

          System.out.println(y);

What is the result?

* A. 10:20
* B. 0:20
* C. Compilation fails at line n1
* D. Compilation fails at line n2

Question #54 Topic 1

Given the definitions of the MyString class and the Test class:

    class MyString{

        String msg;

        MyString(String msg){

            this.msg = msg;

        }

    }

    public static void main(String[] args) {

        System.out.println(new StringBuilder("Java SE 8"));

        System.out.println(new MyString("Java SE 8"));

    }

What is the result?  
A.  
Hello Java SE 8

Hello Java SE 8  
B.  
  
C.  
  
D. Compilation fails at the Test class

Question #55 Topic 1

Given the code fragment:

        int ivar = 100;

        float fvar = 100.00f;

        double dvar = 123;

        fvar = ivar;

        ivar = fvar;

        fvar = dvar;

        dvar = fvar;

        ivar = dvar;

        dvar = ivar;

Which three lines fail to compile? (Choose three.)

* A. Line 7
* B. Line 8
* C. Line 9
* D. Line 10
* E. Line 11
* F. Line 12

Question #56 Topic 1

Given:

public class Question\_56 {

    public static void main(int[] args) {

        System.out.println("int main " + args[0]);

    }

    public static void main(Object[] args) {

        System.out.println("Object main " + args[0]);

    }

    public static void main(String[] args) {

        System.out.println("String main " + args[0]);

    }

}

And the commands:

javac MainTest.java

java MainTest 1 2 3

What is the result?

* A. int main 1
* B. Object main 1
* C. String main 1
* D. Compilation fails
* E. An exception is thrown at runtime

Question #57 Topic 1

Given the code fragment:

        int num[][] = new int[1][3];

        for (int i = 0; i < num.length; i++) {

            for (int j = 0; j < num[i].length; j++) {

                num[i][j] = 10;

            }

        }

Which option represents the state of the num array after successful completion of the outer loop?  
A.  
Uma imagem com texto, Tipo de letra

Descrição gerada automaticamente  
B.  
Uma imagem com texto, Tipo de letra

Descrição gerada automaticamente  
C.  
Uma imagem com texto, Tipo de letra

Descrição gerada automaticamente  
D.  
Uma imagem com texto, Tipo de letra, branco

Descrição gerada automaticamente

Question #58 Topic 1

Given this code for a Planet object:

    public class Planet {

        public String name;

        public int moons;

        public Planet (String name, int moons) {

            this.name = name;

            this.moons = moons;

        }

    }

    public static void main(String[] args) {

        Planet[] planets = {

                new Planet("Mercury",0),

                new Planet("Venus",0),

                new Planet("Earth",1),

                new Planet("Mars",2)

        };

        System.out.println(planets);

        System.out.println(planets[2].name);

        System.out.println(planets[2].moons);

    }  
What is the output?

A. planets

Earth

1

B. [LPlanets. Planet; @15db9742

Earth

1

C. [LPlanets. Planet; @15db9742

Planets. Planet@6d06d69c

1

D. [LPlanets. Planet; @15db9742

Planets. Planet@6d06d69c

[LPlanets. Moon; 07852e922

E. [LPlanets. Planet; @15db9742

Venus

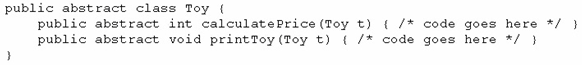
0

Question #59 Topic 1

You are asked to develop a program for a shopping application, and you are given this information:  
✑ The application must contain the classes Toy, EduToy, and ConsToy. The Toy class is the superclass of the other two classes.  
✑ The int calculatePrice (Toy t) method calculates the price of a toy.  
✑ The void printToy (Toy t) method prints the details of a toy.  
Which definition of the Toy class adds a valid layer of abstraction to the class hierarchy?  
A.  
Uma imagem com texto, Tipo de letra, branco, recibo

Descrição gerada automaticamente  
B.  
Uma imagem com texto, Tipo de letra, branco, recibo

Descrição gerada automaticamente  
C.  
Uma imagem com texto, Tipo de letra, recibo, branco

Descrição gerada automaticamente  
D.  


Question #60 Topic 1

Given the following code:

int [] intArr = {15, 30, 45, 60, 75};

intArr[2] = intArr[4];

intArr[4] = 90;

What are the values of each element in intArr after this code has executed?

* A. 15, 60, 45, 90, 75
* B. 15, 90, 45, 90, 75
* C. 15, 30, 75, 60, 90
* D. 15, 30, 90, 60, 90
* E. 15, 4, 45, 60, 90

Question #61 Topic 1

Given this array:

int[] intArr = {8, 16, 32, 64, 128};

Which two code fragments, independently, print each element in this array? (Choose two.)  
A.  
Uma imagem com texto, Tipo de letra, branco, file

Descrição gerada automaticamente  
B.  
Uma imagem com texto, Tipo de letra, branco, algebra

Descrição gerada automaticamente  
C.  
Uma imagem com texto, Tipo de letra, captura de ecrã, branco

Descrição gerada automaticamente  
D.  
Uma imagem com texto, Tipo de letra, branco, recibo

Descrição gerada automaticamente  
E.  
Uma imagem com texto, Tipo de letra, branco, captura de ecrã

Descrição gerada automaticamente  
F.  
Uma imagem com texto, Tipo de letra, branco, file

Descrição gerada automaticamente

Question #62 Topic 1

Given the content of three files:

    A.java:

    public class A{

        public void a(){}

        int a;

    }

    B.java:

    public class B{

        private int doStuff(){

            private int x = 100;

            return x++;

        }

    }

    C.java:

    import java.io.\*;

    package p1;

    class A{

        public static void main(String filename) throws IOException {

        }

    }

Which statement is true?

* A. Only the A.Java file compiles successfully.
* B. Only the B.java file compiles successfully.
* C. Only the C.java file compiles successfully.
* D. The A.Java and B.java files compile successfully.
* E. The B.java and C.java files compile successfully.
* F. The A.Java and C.java files compile successfully.

Question #63 Topic 1

Given the code fragment:

Int[] array = {1, 2, 3, 4, 5};

And given the requirements:  
1. Process all the elements of the array in the order of entry.  
2. Process all the elements of the array in the reverse order of entry.  
3. Process alternating elements of the array in the order of entry.

Which two statements are true? (Choose two.)

A. Requirements 1, 2, and 3 can be implemented by using the enhanced for loop.

B. Requirements 1, 2, and 3 can be implemented by using the standard for loop.

C. Requirements 2 and 3 CANNOT be implemented by using the standard for loop.

D. Requirement 1 can be implemented by using the enhanced for loop.

E. Requirement 3 CANNOT be implemented by using either the enhanced for loop or the standard for loop.

Question #64 Topic 1

Given:

public class TestScope {

    public static void main(String[] args) {

        int var1 = 200;

        System.out.println(doCalc(var1));

        System.out.println(" " + var1);

    }

    static int doCalc(int var1) {

        var1 = var1 \* 2;

        return var1;

    }

}

What is the result?

* A. 400 200
* B. 200 200
* C. 400 400
* D. Compilation fails.

Question #65 Topic 1

Given the following class declarations:  
✑ public abstract class Animal  
✑ public interface Hunter  
✑ public class Cat extends Animal implements Hunter  
✑ public class Tiger extends Cat  
Which answer fails to compile?

1. ArrayList<Animal› mylist = new Arraylist ();

myList. add (new Tiger));

1. ArrayList<Hunter> myList = new Arraylist>();

myList. add (new Cat ());

1. ArrayList<Hunter> myList = new ArrayList> ();

myList. add (new Tiger));

1. ArrayList<Tiger> myList = new Arraylist>();

myList. add (new Cat ()) ;

1. ArrayList<Animal> mylist = new ArraylIst ();

myList. add (new Cat ()) ;

Question #66 Topic 1

Which statement is true about Java byte code?

* A. It can run on any platform.
* B. It can run on any platform only if it was compiled for that platform.
* C. It can run on any platform that has the Java Runtime Environment.
* D. It can run on any platform that has a Java compiler.
* E. It can run on any platform only if that platform has both the Java Runtime Environment and a Java compiler.

Question #67 Topic 1

Given:

public class MarkList {

    int num;

    public static void graceMarks(MarkList obj4) {

        obj4.num += 10;

    }

    public static void main(String[] args) {

        MarkList obj1 = new Question\_67();

        MarkList obj2 = obj1;

        MarkList obj3 = null;

        obj2.num = 60;

        graceMarks(obj2);

    }

}

How many MarkList instances are created in memory at runtime?

* A. 1
* B. 2
* C. 3
* D. 4

Question #68 Topic 1

Given:

public class Triangle {

    static double area;

    int b = 2, h = 3;

    public static void main(String[] args) {

        double p, b, h;

        if (area == 0) {

            b = 3;

            h = 4;

            p = 0.5;

            area = p \* b \* h;

        }

        System.out.println(area);

    }

}

What is the result?

* A. Area is 6.0
* B. Area is 3.0
* C. Compilation fails at line n1
* D. Compilation fails at line n2.

Question #69 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        //line n1

        switch (x) {

            case 1:

                System.out.println("One");

                break;

            case 2:

                System.out.println("Two");

                break;

        }

    }

Which three code fragments can be independently inserted at line n1 to enable the code to print One? (Choose three.)

* A. byte x = 1;
* B. short x = 1;
* C. String x = "1";
* D. long x = 1;
* E. double x = 1;
* F. Integer x = new Integer("1");

Question #70 Topic 1

Given:

    public static void main(String[] args) {

        Boolean[] bool = new Boolean[2];

        bool[0] = new Boolean(Boolean.parseBoolean("true"));

        bool[1] = new Boolean(null);

        System.out.println(bool[0] + " " + bool[1]);

    }

What is the result?

* A. True false
* B. True null
* C. Compilation fails
* D. A NullPointerException is thrown at runtime

Question #71 Topic 1

Given the following code for the classes MyException and Test:

public class MyException extends RuntimeException {

}

Test class:

    public static void main(String[] args) {

        try {

            method1();

        } catch (MyException e) {

            System.out.println("A");

        }

    }

    public static void method1() {

        try {

            throw Math.random() > 0.5 ? new MyException() : new RuntimeException();

        } catch (RuntimeException re) {

            System.out.println("B");

        }

    }

What is the result?

* A. A
* B. B
* C. Either A or B
* D. A B
* E. A compile time error occurs at line n1

Question #72 Topic 1

Given:

public class App {

    String myStr = "7007";

    public void doStuff(String str) {

        int myNum = 0;

        try {

            String myStr = str;

            myNum = Integer.parseInt(myStr);

        } catch (NumberFormatException ne) {

            System.err.println("Error");

        }

        System.out.println("myStr:" + myStr + "myNum:" + myNum);

    }

    public static void main(String[] args) {

        App obj = new App();

        obj.doStuff("9009");

    }

}

What is the result?

* A. myStr: 9009, myNum: 9009
* B. myStr: 7007, myNum: 7007
* C. myStr: 7007, myNum: 9009
* D. Compilation fails

Question #73 Topic 1

Which two are benefits of polymorphism? (Choose two.)

* A. Faster code at runtime
* B. More efficient code at runtime
* C. More dynamic code at runtime
* D. More flexible and reusable code
* E. Code that is protected from extension by other classes

Question #74 Topic 1

Given the code fragment:

        int nums[] = {1, 2, 3};

        int nums2[] = {1, 2, 3, 4, 5};

        nums2 = nums;

        for(int x : nums2)

            System.out.println(x + ": ");

What is the result?

* A. 1:2:3:4:5:
* B. 1:2:3:
* C. Compilation fails.
* D. An ArrayOutOfBoundsException is thrown at runtime.

Question #75 Topic 1

Given:

    public class Product{

        int id;

        String name;

        public Product(int id, String name) {

            this.id = id;

            this.name = name;

        }

    }

And given the code fragment:

        Product p1 = new Product(101, "Pen");

        Product p2 = new Product(101, "Pen");

        Product p3 = p1;

        boolean ans1 = p1 == p2;

        boolean ans2 = p1.name.equals(p2.name);

        System.out.println(ans1 + " : " + ans2);

What is the result?

* A. true:true
* B. true:false
* C. false:true
* D. false:false

Question #76 Topic 1

Given the following classes:  
  
    class Employee {

        public int salary;

    }

    class Manager extends Employee {

        public int budget;

    }

    public class Director extends Manager {

        public int stockOptions;

    }

And the following main method:

        public static void main (String [] args ) {

            Employee employee = new Employee();

            Manager manager = new Manager();

            Director director = new Director();

            // line n1

        }

Which two options fail to compile when placed at line n1 of the main method? (Choose two.)

* A. employee.salary = 50\_000;
* B. director.salary = 80\_000;
* C. employee.budget = 200\_000;
* D. manager.budget = 1\_000\_000;
* E. manager.stockOption = 500;
* F. director.stockOptions = 1\_000;

Question #77 Topic 1

Which one of the following code examples uses valid Java syntax?

public static void main(String[] args) {

    System.out.println("hello");

}

public static void main(String[] ) {

    System.out.println("hello");

}

public void main(String[] args) {

    System.out.println("hello");

}

public static void main(String() args) {

    System.out.println("hello");

}

* A. Option A
* B. Option B
* C. Option C
* D. Option D

Question #78 Topic 1

Given the code fragment:

        int n[][] = { { 1, 3 }, { 2, 4 } };

        for (int i = n.length - 1; i >= 0; i--) {

            for (int y : n[i]) {

                System.out.println(y);

            }

        }

What is the result?

* A. 1324
* B. 2313
* C. 3142
* D. 4231
* ?. 2413

Question #79 Topic 1

Given:

    class Caller {

        private void init () {

            System.out.println("Initialized");

        }

        private void start () {

            init();

            System.out.println("Started");

        }

    }

    public class Test {

        public static void main(String[] args) {

            Caller c - new Caller();

            c.start();

            c.init();

        }

    }

What is the result?

* A. An exception is thrown at runtime.
* B. Initialized Started Initialized
* C. Initialized Started
* D. Compilation fails.

Question #80 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        try {

            int num = 10;

            int div = 0;

            int ans = num / div;

        } catch (ArithmeticException e) {

            ans = 0;

        } catch (Exception e)

        {

            System.out.println("Invalid calculation");

        }

        System.out.println("Answer = " + ans);

    }

What is the result?

* A. Answer = 0
* B. Invalid calculation
* C. Compilation fails only at line n1.
* D. Compilation fails only at line n2.
* E. Compilation fails at line n1 and line2.

Question #81 Topic 1

Given:

public class MyField {

    int x;

    int y;

    public void doStuffy(int x, int y) {

        x = x;

        y = this.y;

    }

    public void display () {

        System.out.print(x + " " + y + " : ");

    }

    public static void main(String[] args) {

        MyField m1 = new MyField ();

        m1.x = 100;

        m1.y = 200;

        MyField m2 = new MyField();

        m2.doStuffy(m1.x, m1.y);

        m1.display();

        m2.display();

    }

}

What is the result?

* A. 100 200 : 0 0 :
* B. 100 200 : 100 0 :
* C. 100 200 : 100 200 :
* D. 0 0 : 100 0 :

Question #82 Topic 1

Given:

public class Vowel {

    private char var;

    public static void main (String[] args){

        char var1= 'a';

        char var2 = var1;

        var2 = 'e';

        Vowel obj1 = new Vowel();

        Vowel obj2 = obj1;

        obj1.var = 'o';

        obj2.var = 'i';

        System.out.println(var1 +", " +var2);

        System.out.print(obj1.var +", " + obj2.var);

    }

}

What is the result?

* A. a, e i, i
* B. a, e o, o
* C. e, e i, i
* D. a, a o, o

Question #83 Topic 1

Given the code fragment:

        if (aVar++ < 10) {

            System.out.println(aVar + " Hello Universe!");

        } else {

            System.out.println(aVar + " Hello World!");

        }

What is the result if the integer aVar is 9?

* A. Compilation fails.
* B. 10 Hello Universe!
* C. 10 Hello World!
* D. 9 Hello World!

Question #84 Topic 1

Given:

    public static void main (String[] args) {

        String s = "Java SE 8 1";

        int len = s.trim().length();

        System.out.print(len);

What is the result?

* A. Compilation fails.
* B. 11
* C. 8
* D. 9
* E. 10

Question #85 Topic 1

Given:

    public static void main(String[] args) {

        boolean a = new Boolean(Boolean.valueOf(args[0]));

        boolean b = new Boolean(args[1]);

        System.out.println(a + " " + b);

    }

And given the commands:

javac Test.java

java Test 1 null

What is the result?

* A. 1 null
* B. true false
* C. false false
* D. true true
* E. A ClassCastException is thrown at runtime.

Question #86 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        int[][] arr = new int[2][4];

        arr[0] = new int[] { 1, 3, 5, 7 };

        arr[1] = new int[] { 1, 3 };

        for (int[] a : arr) {

            for (int i : a) {

                System.out.print(i + " ");

            }

            System.out.println();

        }

    }

What is the result?

1. Compilation fails
2. 1 3

1 3

1. 1 3

ArrayIndexOutOfBoundsException

1. 1 3

1 3 0 0

1. 1 3 5 7

1 3

Question #87 Topic 1

Which statement will empty the contents of a StringBuilder variable named sb?

* A. sb. deleteAll ();
* B. sb. delete (0, sb. size () );
* C. sb. delete (0, sb. length () );
* D. sb. removeAll ();

Question #88 Topic 1

Given:

        String stuff = "TV";

        String res = null;

        if (stuff.equals("TV")) {

            res = "Walter";

        } else if (stuff.equals("Movie")) {

            res = "White";

        } else {

            res = "No Result";

        }

Which code fragment can replace the if block?  
A.  
  
B.  
  
C.  
  
D. res = stuff.equals("TV") ? "Walter" : stuff.equals("Movie") ? "White" : "No Result";

Question #89 Topic 1

Given:

    public class Patient {

        String name;

        public Patient (String name) {

            this.name = name;

        }

    }

And the code fragment:

    public class Test{

        public static void main(String[] args) {

            List ps = new ArrayList();

            Patient p2 = new Patient ("Mike");

            ps.add(p2);

            // insert code here

            if (f >= 0) {

                System.out.println("Mike Found");

            }

        }

    }

Which code fragment, when inserted at line 14, enables the code to print Mike Found?  
A. int f = ps.indexOf(p2);  
B.  
  
C.  
  
D.  
Uma imagem com texto, Tipo de letra, branco, algebra

Descrição gerada automaticamente

Question #90 Topic 1

Which statement is true about the switch statement?

* A. It must contain the default section.
* B. The break statement, at the end of each case block, is mandatory.
* C. Its case label literals can be changed at runtime.
* D. Its expression must evaluate to a single value.

Question #91 Topic 1

Given:

    class Animal{

        String type = "Canine";

        int maxspeed = 60;

        Animal () {}

        Animal (String type, int maxspeed) {

            this.type = type;

            this.maxSpeed = maxSpeed;

        }

    }

    class WildAnimal extends Animal {

        String bounds;

        WildAnimal (String bounds) {

        //line n1

        }

        WildAnimal (String type, int maxSpeed, String bounds) {

        //line n2

        }

    }

And given the code fragment:

    WildAnimal wolf = new WildAnimal ("Long") ;

    WildAnimal tiger = new WildAnimal ("Feline", 80, "Short");

    System.out.println(wolf.type + " " + wolf.maxSpeed + " " + wolf.bounds);

    System.out.println(tiger.type + " " + tiger.maxSpeed + " " + tiger.bounds);

and this output:  
  
Canine 60 Long -  
  
Feline 80 Short -  
Which two modifications enable the code to print this output? (Choose two.)

* A. . Replace line n1 with:

super ();

this. bounds = bounds;

* B. Replace line n1 with: 
* C. Replace line n2 with: 
* D. Replace line n1 with: Uma imagem com texto, Tipo de letra, branco

  Descrição gerada automaticamente
* E. Replace line n2 with: Uma imagem com texto, Tipo de letra, branco

  Descrição gerada automaticamente

Question #92 Topic 1

Given the code fragment:

public static void main(String[] args) {

        String names [] = {"Thomas", "Peter", "Joseph"};

        String pwd [] = new String [3];

        int idx = 0;

        try {

            for (String n: names) {

                pwd [idx] = n.substring(2, 6);

                idx++;

            }

        }

        catch (Exception e) {

            System.out.println ("Invalid Name");

        }

        for (String p: pwd) {

            System.out.println (p);

        }

    }

What is the result?

1. Invalid Name
2. Invalid Name

omas

1. Invalid Name

omas

null

null

1. omas

ter

seph

Question #93 Topic 1

Given the code fragment:

    class Employee {

        private String name;

        private int age;

        private int salary;

        public Employee (String name, int age) {

            setName (name)

            setAge (age)

            setSalary (2000) ;

        }

        public Employee (String name, int age, int salary) {

            setSalary (salary);

            this (name, age);

        }

        //getter and setter methods for attributes go here

        public void printDetails () {

            System.out. println (name + " : " + age + " : " + salary);

        }

Test.java -

class Test {

    public static void main (String[] args) {

    Employee el = new Employee () ;

    Employee e2 = new Employee ("Jack", 50);

    Employee e3 = new Employee ("Chloe", 40,5000);

    el. printDetails () ;

    e2. printDetails () ;

    e3. printDetails () ;

}

Which is the result?

* A. Compilation fails in the Employee class. B. Uma imagem com texto, Tipo de letra, branco, design

  Descrição gerada automaticamenteC. Uma imagem com texto, Tipo de letra, ferramenta

  Descrição gerada automaticamente
* D. Compilation fails in the Test class.
* E. Both the Employee class and the Test class fail to compile.

Question #95 Topic 1

Given:  
    class A {

        public void test () {

            System.out.println ("A");

        }

    }

    class B extends A {

        public void test () {

            System.out.println ("B");

        }

    }

    public class C extends A {

        public void test () {

            System.out.println ("C");

        }

    }

    public static void main(String[] args) {

        A b1 = new A ();

        A b2 = new C ();

        b1 = (A) b2;      //line n1

        A b3 = (B) b2;    //line n2

        b1.test ();

        b3.test ();

    }

What is the result?

* A. A B
* B. A C
* C. C C
* D. A ClassCastException is thrown only at line n1.
* E. A ClassCastException is thrown only at line n2.

Question #96 Topic 1

Given:

    public static void doSum(Integer x, Integer y) {

        System.out.println("Integer sum is " + (x + y));

    }

    public static void doSum(double x, double y) {

        System.out.println("Double sum is " + (x + y));

    }

    public static void doSum(float x, float y) {

        System.out.println("Float sum is " + (x + y));

    }

    public static void doSum(int x, int y) {

        System.out.println("Int sum is " + (x + y));

    }

    public static void main(String[] args) {

        doSum(10, 20);

        doSum(10.0, 20.0);

    }

What is the result?  
A.  
  
B.  
int sum is 30

Double sum is 30.0  
C.  
  
D.  


Question #97 Topic 1

You are asked to create a method that accepts an array of integers and returns the highest value from that array.  
Given the code fragment:

public class Test {

    public static void main(String[] args) {

        int numbers[] = {12, 13, 42, 32, 15, 156, 23, 51, 12};

        int[] keys = findMax(numbers);

    }

    /\*line n1 \*/{

        int[] keys = new int[3];

        /\*code goes here \*/

        return keys;

    }

}

Which method signature do you use at line n1?

* A. public int findMax (int[] numbers)
* B. static int[] findMax (int[] max)
* C. static int findMax (int[] numbers)
* D. final int findMax (int[] )

Question #98 Topic 1

Which three statements are true about the structure of a Java class? (Choose three.)

* A. A public class must have a main method.
* B. A class can have only one private constructor.
* C. A method can have the same name as a field.
* D. A class can have overloaded static methods.
* E. The methods are mandatory components of a class.
* F. The fields need not be initialized before use.

Question #99 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        System.out.println("Result A " + 0 + 1);

        System.out.println("Result B " + (1) + (2));

    }

What is the result?

1. Result A 01

Result B 3

1. Result A 1

Result B 12

1. Result A 1

Result B 3

1. Result A 01

Result B 12

Question #100 Topic 1

Given:

public class App {

    int count;

    public static void displayMessage() {

        count++; //line n1

        System.out.println("Welcome. Visit count: " + count); //line n2

        }

    public static void main(String[] args) {

        App.displayMessage(); //line n3

        App.displayMessage(); //line n4

    }

}

What is the result?

* A. Compilation fails at line n3 and line n4.
* B. Compilation fails at line n1 and line n2.
* C. Welcome Visit Count:1 Welcome Visit Count: 1
* D. Welcome Visit Count:1 Welcome Visit Count: 2

Question #101 Topic 1

Given the code fragment:

class Person {

    String name;

    int age = 25;

    Person (String name) { // line 1

        setName(name);

    }

    public Person (String name, int age) {

        Person(name); // line 2

        setAge(age);

    }

    // setter and getter methods go here

    public void setName (String name) { this.name  = name; }

    public void setAge (int age) { this.age = age; }

    public String show() {

        return name + " " + age;

    }

    public static void main(String[] args) {

        Person p1 = new Person("Jesse");

        Person p2 = new Person("Walter",52);

        System.out.println(p1.show());

        System.out.println(p2.show());

    }

}

What is the result?

* A. Compilation fails at both line n1 and line n2.
* B. Compilation fails only at line n2.
* C. Compilation fails only at line n1.
* D. Jesse 25 Walter 52

Question #102 Topic 1

Given the code fragment:

public class Test {

    static int count = 0;

    int i = 0;

    public void changeCount() {

        while(i<5) {

            i++;

            count++;

        }

    }

    public static void main (String [] args) {

        Test check1 = new Test ();

        Test check2 = new Test ();

        check1.changeCount();

        check2.changeCount();

        System.out.print(check1.count + " : " + check2.count);

    }

}

What is the result?

* A. 5 : 5
* B. 10 : 10
* C. 5 : 10
* D. Compilation fails.

Question #103 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        ArrayList<Integer> points = new ArrayList<>();

         points.add(1);

         points.add(2);

         points.add(3);

         points.add(4);

         points.add(null);

         points.remove(1);

         points.remove(null);

        System.out.println(points);

    }

What is the result?

* A. A NullPointerException is thrown at runtime.
* B. [1, 2, 4]
* C. [1, 2, 4, null]
* D. [1, 3, 4, null]
* E. [1, 3, 4]
* F. Compilation fails.

Question #104 Topic 1

Given:

    public static void main(String[] args) {

        int numbers[];

        numbers = new int[2];

        numbers [0] = 10;

        numbers [1] = 20;

        numbers = new int [4];

        numbers [2] = 30;

        numbers [3] = 40;

        for (int x : numbers) {

            System.out.println(" " + x);

        }

    }

What is the result?

* A. 10 20 30 40
* B. 0 0 30 40
* C. Compilation fails.
* D. An exception is thrown at runtime.

Question #105 Topic 1

Which two code fragments cause a compilation error? (Choose two.)

A. float flt = 100.00F; // correct

B. float flt = (float) 1\_11.00; // correct

C. Float flt = 100.00; // assigning a double to Float object without explicit cast

D. double y1 = 203.22; float flt = y1; // assigning a double to a float without explicit cast

E. int y2 = 100; float flt = (float) y2 ; // correct

Question #106 Topic 1

Given:

public class FieldInit {

    char c;

    boolean b;

    float f;

    void printAll() {

        System.out.println("c = " + c);

        System.out.println("b = " + b);

        System.out.println("f = " + f);

    }

    public static void main(String[] args) {

        FieldInit t = new FieldInit();

        t.printAll();

    }

}

What is the result?

1. c=

b=false

f=0.0

1. c=null

b=true

f=0.0

1. c=0

b=false

f=0.0f

1. c=null

b=false

f=0.0F

Question #107 Topic 1

Which three statements are true about exception handling? (Choose three.)

* A. Only unchecked exceptions can be rethrown.
* B. All subclasses of the RuntimeException class are not recoverable.
* C. The parameter in a catch block is of Throwable type.
* D. All subclasses of the RuntimeException class must be caught or declared to be thrown.
* E. All subclasses of the RuntimeException class are unchecked exceptions.
* F. All subclasses of the Error class are not recoverable.

Question #109 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        String myStr = "Hello World ";

        myStr.trim();

        int i1 = myStr.indexOf(" ");

        System.out.println(i1);

    }

What is the result?

* A. An exception is thrown at runtime.
* B. -1
* C. 5
* D. 10

Question #110 Topic 1

Given:

    public static void main(String[] args) {

        String str1 = "Java";

        String [] str2 = { "J", "a", "v", "a" };

        String str3 = "";

        for (String str : str2) {

            str3 = str3 + str;

        }

        boolean b1 = (str1.equals(str3));

        boolean b2 = (str1==str3);

        System.out.println(b1+", "+b2);

What is the result?

* A. false, false
* B. false, true
* C. true, false
* D. true, true

Question #111 Topic 1

Which two statements are true? (Choose two.)

* A. Error class is unextendable.
* B. Error class is extendable.
* C. Error is a RuntimeException.
* D. Error is an Exception.
* E. Error is a Throwable.

Question #112 Topic 1

Given the code fragment:

    public static void main(String[] args) {

        int data[] = { 2010, 2013, 2014, 2015, 2014 };

        int key = 2014;

        int count = 0;

        for (int e : data) {

            if (e != key) {

                continue;

                count++;

            }

        }

        System.out.print(count + " Found");

    }

What is the result?

* A. Compilation fails.
* B. 0 Found
* C. 1 Found
* D. 3 Found

Question #113 Topic 1

Given the code fragment:

        LocalDateTime dt = LocalDateTime.of(2014, 7, 31, 1, 1);

        dt.plusDays(30);

        dt.plusMonths(1);

        System.out.print(dt.format(DateTimeFormatter.ISO\_DATE));

What is the result?

* A. An exception is thrown at runtime.
* B. 07-31-2014
* C. 2014-07-31 //dt is immutable
* D. 2014-09-30

Question #114 Topic 1

Given:

    public class Test {

        public static final int MIN = 1;

        public static void main(String[] args) {

            int x = args.length;

            if (checkLimit(x)) {

                System.out.println("Java SE");

            } else {

                System.out.println("Java EE");

            }

        }

        private static boolean checkLimit(int x) {

            return (x >= MIN) ? true : false;

        }

    }

And given the commands:

javac Test.java

java Test 1

What is the result?

* A. Java SE
* B. Java EE
* C. Compilation fails at line n1.
* D. A NullPointerException is thrown at runtime.

Question #115 Topic 1

Given this class:

public class CheckingAccount{

    public int amount;

    //line n1

}

And given this main method, located in another class:

public static void main(String[] args){

    CheckingAccount acct = new CheckingAccount();

    //line n2

}

Which three pieces of code, when inserted independently, set the value of amount to 100? (Choose three.)  
A.  
Uma imagem com texto, Tipo de letra, branco, algebra

Descrição gerada automaticamente  
B.  
  
C.  
  
D.  
Uma imagem com texto, Tipo de letra, branco, algebra

Descrição gerada automaticamente  
E.  
  
F.  
Uma imagem com texto, Tipo de letra, branco

Descrição gerada automaticamente

Question #116 Topic 1

Given the code fragments:

public interface Exportable {

    void export();

}

class Tool implements Exportable {

   void export() {

        System.out.println("Tool::export");

    }

}

class ReportTool extends Tool implements Exportable {

    public void export () { // line n2

        System.out.println("RTool::export");

    }

    public static void main(String[] args) {

        Tool aTool = new ReportTool();

        Tool bTool = new Tool();

        callExport(aTool);

        callExport(bTool);

    }

    public static void callExport (Exportable ex) {

        ex.export();

    }

}

What is the result?

* A. Compilation fails only at line n2.
* B. RTool::export Tool::export
* C. Tool::export Tool:export
* D. Compilation fails only at line n1. //interface methods are public/abscract by default, you can’t reduce visibility
* E. Compilation fails at both line n1 and line n2.

Question #117

Given the code fragment:

        float var1 = (12\_345.01 <= 123\_45.00) ? 12\_456 : 124\_56.02f;

        float var2 = var1 + 1024;

        System.out.println(var2);

What is the result?

* A. An exception is thrown at runtime.
* B. Compilation fails.
* C. 13480.0
* D. 13480.02

Question #118

Given:

    public class Test{

public static int stvar = 100;

    public int var = 200;

    public String toString(){

        return stvar + ":" + var;

    }}

And given the code fragment:

        Test t1 = new Test();

        t1.var= 300;

        System.out.println(t1);

        Test t2 = new Test();

        t2.stvar =300;

        System.out.println(t2);

What is the result?

* A. 300:300 200:300
* B. 300:100 200:300
* C. 300:0 0:300
* D. 100:300 300:200

Question #119

Given:

    class C2 {

        public void displayC2(){

            System.out.println("C2");

        }

    }

    interface I {

        public void displayI();

    }

    class C1 extends C2 implements I {

        public void displayI() {

            System.out.println("C1");

        }

    }

And given the code fragment:

    C2 obj1 = new C1();

    I obj2 = new C1();

    C2 s = obj2;

    I t = obj1;

    t.displayI();

    s.displayC2();

What is the result?

* A. C2C2
* B. C1C2
* C. C1C1
* D. Compilation fails // C2 and I are not parent/child class to each other. Implicit casting will not work. At least, we will need to explicitly cast C2 s = (C2) obj2; I t = (I) obj1;

Question #120

Given:

package clothing;

public class Shirt {

    public static String getColor() {

        return "Green";

    }

}

Given the code fragment:

package clothing.pants;

import clothing.Shirt;

public class Jeans {

    public void matchShirt () {

        String color = Shirt.getColor();

        if(color.equals("Green")) {

            System.out.print("Fit");

        }

    }

    public static void main(String[] args) {

        Jeans trouser = new Jeans();

        trouser.matchShirt();

    }}

Which two sets of actions, independently, enable the code fragment to print Fit?

* A. At line n1 insert: import clothing.Shirt; At line n2 insert: String color = Shirt.getColor();
* B. At line n1 insert: import clothing; At line n2 insert: String color = Shirt.getColor();
* C. At line n1 insert: import static clothing.Shirt.getColor; At line n2 insert: String color = getColor();
* D. At line n1 no changes required. At line n2 insert: String color = Shirt.getColor();
* E. At line n1 insert: import Shirt; At line n2 insert: String color = Shirt.getColor();

Question #120

Assume customers.txt is accessible and contains multiple lines.  
Which code fragment prints the contents of the customers.txt file?

* A. Stream<String> stream = Files.find (Paths.get ("customers.txt")); stream.forEach((String c) -> System.out.println(c));
* B. Stream<Path> stream = Files.find (Paths.get ("customers.txt")); stream.forEach( c) -> System.out.println(c));
* C. Stream<Path> stream = Files.list (Paths.get ("customers.txt")); stream.forEach( c) -> System.out.println(c));
* D. Stream<String> lines = Files.lines (Paths.get ("customers.txt")); lines.forEach( c) -> System.out.println(c));

Question #121

Given the code fragments:

class Student{

    String name;

    int age;

}

And:

public class Question\_121 {

    public static void main(String[] args) {

        Student s1 = new Student();

        Student s2 = new Student();

        Student s3 = new Student();

        s1 = s3;

        s3 = s2;

        s2 = null;

    }

}

Which statement is true?

* A. After line 11, three objects are eligible for garbage collection.
* B. After line 11, two objects are eligible for garbage collection.
* C. After line 11, one object is eligible for garbage collection.
* D. After line 11, none of the objects are eligible for garbage collection.

Question #122

Given the code fragment:

    public static void main(String[] args) {

        int wd = 0;

        String days[] = { "sun", "mon", "wed", "sat" };

        for (String s : days) {

            switch (s) {

                case "sat":

                    System.out.println("oi");

                case "sun":

                    wd--;

                    break;

                case "mon":

                    wd++;

                case "wed":

                    wd = wd + 2;

            }

        }

        System.out.print(wd + " ");

    }

What is the result?

* A. 3
* B. 4
* C. -1
* D. Compilation fails.

Question #123

Given the code fragment:

    public static void main(String[] args) {

        LocalDate date = LocalDate.of(2012, 01, 32);

        date.plusDays(10);

        System.out.println(date);

    }

What is the result?

* A. 2012-02-10
* B. 2012-02-11
* C. Compilation fails
* D. A DateTimeException is thrown at runtime.

Question #124

Given:

    public static void main(String[] args) {

        int i = 10;

        int j = 20;

        int k = (j += i) / 5;

        System.out.println(i + " : " + j + " : " + k);

    }

What is the result?

* A. 10 : 30 : 6
* B. 10 : 22 : 22
* C. 10 : 22 : 20
* D. 10 : 22 : 6

Question #125

Given:

    interface Downloadable {

        public void download();

    }

    interface Readable extends Downloadable { // line n1

        public void readBook ();

    }

    abstract class Book implements Readable { // line n2

        public void readBook() {

            System.out.println("Read Book");

        }

    }

    class EBook extends Book { // line n3

        public void readBook() {

            System.out.println("Read E-Book");

        }

    }

And given the code fragment:

            Book book1 = new EBook();

            book1.readBook();

What is the result?

* A. Compilation fails at line n2.
* B. Read Book
* C. Read E-Book
* D. Compilation fails at line n1.
* E. Compilation fails at line n3.

Question #126

Given this class:

public class Rectangle {

    private double length;

    private double height;

    private double area;

    public void setLength(double length) {

        this.length = length;

    }

    public void setHeight(double height) {

        this.height = height;

    }

    public void setArea() {

        this.area = length \* height;

    }

    public static void main(String[] args) {

        Rectangle a = new Rectangle();

        a.setHeight(2);

        a.setLength(3);

        a.setArea();

        System.out.println(a.area);

    }

}

Which two changes would encapsulate this class and ensure that the area field is always equal to length \* height whenever the Rectangle class is used?  
(Choose two.)

* A. Call the setArea method at the end of the setHeight method.
* B. Call the setArea method at the beginning of the setHeight method.
* C. Call the setArea method at the end of the setLength method.
* D. Call the setArea method at the beginning of the setLength method.
* E. Change the setArea method to private.
* F. Change the area field to public.

Question #127

Given the code fragment:

        List <String> colors = new ArrayList();

        colors.add("Green");

        colors.add("Blue");

        colors.add("Red");

        colors.add("Yelow");

        colors.remove(2);

        colors.add(3,"Cyan");

        System.out.println(colors);

What is the result?

* A. [green, red, yellow, cyan]
* B. [green, blue, yellow, cyan]
* C. [green, red, cyan, yellow]
* D. An IndexOutOfBoundsException is thrown at runtime.

Question #128

Given the code fragment:

    abstract class Toy{

        int price;

        //line n1

    }

Which three code fragments are valid at line n1? (Choose three.)

    A. public static void insertToy(){

        //code here

    }

    B. final Toy getToy(){ //can’t have final

        return new Toy();

    }

    C. public void printToy(); //requires abstract or implementation

    D. public int calculatePrice(){

        return price;

    }

    E. public abstract int computeDiscount();

Question #129

Given:

public class Test {

    int x, y;

    public Test (int x, int y) {

        initialize(x, y);

    }

    public void initialize (int x, int y) {

        this.x = x \* x;

        this.y = y \* y;

    }

    public static void main (String [] args) {

        int x = 3, y = 5;

        Test obj = new Test(x, y);

        System.out.println(x + " " + y);

    }

}

What is the result?

* A. Compilation fails.
* B. 3 5
* C. 0 0
* D. 9 25

Question #130

Given the code fragment:  
Uma imagem com texto, Tipo de letra, recibo, branco

Descrição gerada automaticamente

public static void main(String[] args) {

    int array[] = {10, 20, 30, 40, 50};

    int x = array.length;

//line n1

}

Which two code fragments can be independently inserted at line n1 to enable the code to print the elements of the array in reverse order? (Choose two.)  
A.

    while (x>0) {

        x--;

        System.out.println(array[x]);

    }

B.

    do {

        x--;

        System.out.print(array[x]);

    } while (x >= 0);

C.

    while (x >= 0) {

        System.out.print(array[x]);

        x--;

    }

D.

    do {

        System.out.print(array[x]);

        --x;

    } while (x > 0);

E.

    while(x > 0) {

        System.out.println(array[--x]);

    }

Question #131

Given:

public class Test {

    int a1;

    public static void doProduct(int a) {

        a = a \* a;

    }

    public static void doString(String s) {

        s.concat(" " + s);

    }

    public static void main (String [] args) {

        Test item = new Test();

        item.a1 = 11;

        String sb = "Hello";

        Integer i = 10;

        doProduct(i);

        doString(sb);

        doProduct(item.a1);

        System.out.println(i + " " + sb + " " + item.a1);

    }

}

What is the result?

* A. 10 Hello Hello 11
* B. 10 Hello Hello 121
* C. 100 Hello 121
* D. 100 Hello Hello 121
* E. 10 Hello 11

Question #132

Given the code fragment:

    public static void main(String[] args) {

        String[] arr = { "Hi", "How", "Are", "You" };

        List<String> arrList = new ArrayList<>(Arrays.asList(arr));

        if (arrList.removeIf((String s) -> {

            return s.length() <= 2;

        })) {

            System.out.println(s + "removed");

        }

    }

What is the result?

* A. Compilation fails. //s not visible in println
* B. Hi removed
* C. An UnsupportedOperationException is thrown at runtime.
* D. The program compiles, but it prints nothing.

Question #133

Which two class definitions fail to compile? (Choose two.)

/\* A \*/

abstract class A3 {

    private static int i;

    public void doStuff(){}

    public A3(){}

}

/\* B \*/

final class A1 {

    public A1(){}

}

/\* C \*/

private class A2{ // Illegal Modifier for the class A2

    private static int i;

    private A2(){}

}

/\* D \*/

class A4 {

    protected static final int i = 10;

    private A4() {}

}

/\* E \*/

final abstract class A5 { // The class A5 can be either final or abstract, not both

    protected static int i;

    void doStuff() {}

    abstract void doIt();

}

Question #134

Given:

class Student{

    String name;

    public Student(String name) {

        this.name = name;

    }

}

public class Test {

    public static void main(String[] args) {

        Student[] students = new Student[3];

        students[1] = new Student("Richard");

        students[2] = new Student("Donald");

        for (Student s : students){

            System.out.println("" + s.name);

        }

    }

}

What is the result?

* A. null Richard Donald
* B. Richard Donald
* C. Compilation fails.
* D. An ArrayIndexOutOfBoundsException is thrown at runtime.
* E. A NullPointerException is thrown at runtime.

Question #135

This grid shows the state of a 2D array:  
Uma imagem com file, Retângulo, número

Descrição gerada automaticamente  
The grid is created with this code:  
Uma imagem com texto, Tipo de letra, branco, captura de ecrã

Descrição gerada automaticamente  
Which line of code, when inserted in place of //line n1, adds an X into the grid so that the grid contains three consecutive XS?

* A. grid[2][1] = 'X';
* B. grid[3][2] = 'X';
* C. grid[3][1] = 'X';
* D. grid[2][3] = 'X';

Question #136

Given:

public class Test {

    public static void main(String args[]) {

      int x=1;

      int y=0;

      if(x++ > ++y) {   //checks if(1>1)

         System.out.print("Hello ");

      } else {

          System.out.print("Welcome ");

      }

      System.out.print("Log "+x+":"+y);

    }

}

What is the result?

* A. Hello Log 1:0
* B. Hello Log 2:1
* C. Welcome Log 2:1
* D. Welcome Log 1:0

Question #137

Given the code snippet from a compiled Java source file:  
Uma imagem com texto, recibo, Tipo de letra, captura de ecrã

Descrição gerada automaticamente  
Which command-line arguments should you pass to the program to obtain the following output?  
  
Arg is 2 -

* A. java MyFile 1 3 2 2
* B. java MyFile 2 2 2
* C. java MyFile 1 2 2 3 4
* D. java MyFile 0 1 2 3

Question #138

Given the code fragment:

4. class X {

5.    public void printFileContent(){

6. //code goes here

7.        throw new IOException();

8.    }

9. }

10. public class Test {

11.    public static void main(String[] args){

12.        X xobj = new X();

13.        xobj.printFileContent();

    }

}

Which two modifications should you make so that the code compiles successfully? (Choose two.)

* A. Replace line 13 with: Uma imagem com texto, Tipo de letra, recibo, branco

  Descrição gerada automaticamente//requires to catch children first
* B. Replace line 7 with throw IOException (ג€Exception raisedג€);
* C. Replace line 11 with public static void main(String[]) args) throws Exception {
* D. At line 14, insert throw new IOException();
* E. Replace line 5 with public void printFileContent() throws IOException {

Question #139

Given the code fragment:

    public static void main(String[] args) {

        int[][] arr = new int[2][4];

        arr[0] = new int[] { 1, 3, 5, 7 };

        arr[1] = new int[] { 1, 3 };

        for (int[] a : arr) {

            for (int i=0; i < arr.length; i++) {

                System.out.print(a[i] + " ");

            }

            System.out.println();

        }

    }

What is the result?

* A. 1 3 5 7 1 3
* B. 1 3 1 3
* C. 1 3 1 3 0 0
* D. 1 3 followed by an ArrayIndexOutOfBoundsException
* E. Compilation fails.

Question #140

Given:  
MainTest.java:

    public static void main(String[] args) {

        System.out.println("String main " + args[0]);

    }

and commands:

javac MainTest.java

java MainTest “1 2 3”  
  
What is the result?

* A. String main 1
* B. An exception is thrown at runtime
* C. String main 1 2 3
* D. String main 123

Question #141

Which two statements are true about Java byte code? (Choose two.)

* A. It can be serialized across network.
* B. It can run on any platform that has a Java compiler.
* C. It can run on any platform.
* D. It has ג€.javaג€ extension.
* E. It can run on any platform that has the Java Runtime Environment.

Question #142

Which is true about the switch statement?

* A. Its expression can evaluate to a collection of values.
* B. The break statement, at the end of each case block, is optional.
* C. Its case label literals can be changed at runtime.
* D. It must contain the default section.

Question #143

Given the code fragment:

    public static void main(String[] args) {

        Stream.of("Java", "Unix", "Linux").filter(s -> s.contains("n")).peek(s -> System.out.println("PEEK: " + s))

        //line n1

    }

Which two code fragments, when inserted at line n1 independently, result in the output PEEK: Unix?

* A. .anyMatch ();
* B. .allMatch ();
* C. .findAny ();
* D. .noneMatch ();
* E. .findFirst ();

Question #144

Given:

class SpecialException extends Exception {

    public SpecialException(String message) {

        super(message);

        System.out.println(message);

    }

}

public class ExceptionTest {

    public static void main(String[] args) {

        try {

            doSomething();

        } catch (SpecialException e) {

            System.out.println(e);

        }

    }

    static void doSomething() throws SpecialException {

        int[] ages = new int[4];

        ages[4] = 11;

        doSomethingElse();

    }

    static void doSomethingElse() throws SpecialException {

        throw new SpecialException("Thrown at end of doSomething() method");

    }

}

What will be the output?  
Uma imagem com texto, Tipo de letra, captura de ecrã, documento

Descrição gerada automaticamente

* A. Option A
* B. Option B
* C. Option C
* D. Option D

Question #145

Given this segment of code:

ArrayList<Cycle> myList = new ArrayList<>();

myList.add(new MotorCycle());

Which two statements, if either were true, would make the code compile? (Choose two.)

* A. MotorCycle is an interface that implements the Cycle class.
* B. Cycle is an interface that is implemented by the MotorCycle class.
* C. Cycle is an abstract superclass of MotorCycle.
* D. Cycle and MotorCycle both extend the Transportation superclass.
* E. Cycle and MotorCycle both implement the Transportation interface.
* F. MotorCycle is a superclass of Cycle.

Question #146

Given the code fragments:  
Uma imagem com texto, Tipo de letra, captura de ecrã, recibo

Descrição gerada automaticamente  
What is the result?

* A. Compilation fails only at line n1.
* B. Compilation fails only at line n2.
* C. Tool::export Tool::export
* D. Compilation fails at both line n1 and line2.
* E. RTool::export Tool::export

Question #147

Given:

class Vehicle {

    int x;

    Vehicle() {

        this(10); // line n1

    }

    Vehicle(int x) {

        this.x = x;

    }

}

class Car extends Vehicle {

    int y;

    Car() {

        super(10); // line n2

    }

    Car(int y) {

        super(y);

        this.y = y;

    }

    public String toString() {

        return super.x + ":" + this.y;

    }

}

And given the code fragment:

    public static void main(String[] args) {

        Vehicle y = new Car(20);

        System.out.println(y);

    }

What is the result?

* A. Compilation fails at line n2.
* B. Compilation fails at line n1.
* C. 20:20
* D. 10:20

Question #148

Given the code fragment:

    public static void main(String[] args) {

        LocalDate date = LocalDate.of(2012, 1, 30);

        date.plusDays(10);

        System.out.println(date);

    }

What is the result?

* A. 2012-02-10 00:00
* B. 2012-01-30 //date is immutable
* C. 2012-02-10
* D. A DateTimeException is thrown at runtime.

Question #149

Given:  
Uma imagem com texto, recibo, algebra, Tipo de letra

Descrição gerada automaticamente  
What is the result?

* A. Hello Log 2:2
* B. Welcome Log 1:2
* C. Welcome Log 2:1
* D. Hello Log 1:2

Question #150

Given the code snippet from a compiled Java source file:  
Uma imagem com texto, recibo, Tipo de letra, algebra

Descrição gerada automaticamenteand this output:  
  
Which command should you run to obtain this output?

* A. java MyFile 2
* B. java MyFile 1 2 3 4
* C. java MyFile 1 2 2
* D. java MyFile 2 2

Question #151

Given the code fragment:

    public static void main(String[] args) {

        String[] arr = { "A", "B", "C", "D" };

        for (int i = 0; i < arr.length; i++) {

            System.out.print(arr[i] + " ");

            if (arr[i].equals("D")) {

                System.out.println("Work done");

                break;

            }

            continue;

        }

    }

What is the result?

* A. A B C Work done
* B. A B C D Work done
* C. A Work done
* D. Compilation fails

Question #152

Given the code fragment:

public class Test {

    public static void main(String[] args) {

        int wd = 0;

        String days[] = { "sun", "mon", "wed", "sat" };

        for (String s : days) {

            switch (s) {

                case "sat":

                case "sun":

                    wd -= 1;

                    break;

                case "mon":

                    wd -= 1;

                    break;

                case "wed":

                    wd += 2;

            }

        }

        System.out.println(wd);

    }

}

What is the result?

* A. 3
* B. 0
* C. Compilation fails.
* D. -1

Question #153

Given the code fragment:

    public static void main(String[] args) {

        String[] arr = { "Hi", "How", "Are", "You" };

        List<String> arrList = new ArrayList<>(Arrays.asList(arr));

        if (arrList.removeIf(s -> {

            System.out.print(s);

            return s.length() <= 2;

        })) {

            System.out.println(" removed");

        }

    }

What is the result?

* A. Compilation fails.
* B. The program compiles, but it prints nothing.
* C. HiHowAreYou removed
* D. An UnsupportedOperationException is thrown at runtime.

Question #154

Given the code fragment:

    public static void main(String[] args) {

        String[] strs = {"A", "B"};

        int idx = 0;

        for(String s : strs) {

            strs[idx].concat(" element " + idx);

            idx++;

        }

        for(idx = 0; idx < strs.length; idx++) {

            System.out.println(strs[idx]);

        }

    }

What is the result?

* A. A B //string even inside arr is immutable
* B. A element 0 B element 1
* C. A NullPointerException is thrown at runtime.
* D. A 0 B 1

Question #155

Given:

    class C{

        public C(){

            System.out.println("C ");

        }

    }

    class B extends C{

        public B(){

            System.out.println("B ");

        }

    }

    public class A extends B{

        public A(){

            System.out.println("A ");

        }

        public static void main(String[] args) {

            A a = new A();

        }

    }

What is the result?

* A. C B A //super() is first line on constructor
* B. C
* C. A B C
* D. Compilation fails at line n1 and line n2

Question #156

Given this code for the classes MyException and Test:

class MyException extends RuntimeException {

};

public class Test {

    public static void main(String[] args) {

        try {

            method1();

        } catch (MyException ne) {

            System.out.print("A");

        }

    }

    public static void method1() {

        try {

            throw 3 > 10 ? new MyException() : new IOException();

        } catch (IOException ie) {

            System.out.println("I");

        }catch(Exception re ){

            System.out.println("B");

        }

    }

}

What is the result?

* A. A
* B. AB
* C. A compile time error occurs at line n1.
* D. B
* E. I

Question #157

Given the code fragment:

public static void main(String[] args) {

        String names [] = {"Thomas", "Peter", "Joseph"};

        String pwd [] = new String [3];

        int idx = 0;

        try {

            for (String n: names) {

                pwd [idx] = n.substring(2, 6);

System.out.println(pwd[idx]);

                idx++;

            }

        }

        catch (Exception e) {

            System.out.println ("Invalid Name");

        }

    }

What is the result?

A. omas

Invalid Name

null

B. omas

ter

seph

C. Invalid Name –

D. omas

Invalid Name

Question #158

Which three statements are true about the structure of a Java class? (Choose three.)

* A. A class cannot have the same name as its field.
* B. A public class must have a main method.
* C. A class can have final static methods.
* D. A class can have overloaded private constructors.
* E. Fields need to be initialized before use.
* F. Methods and fields are optional components of a class.

Question #159

Given the code fragment:

1. abstract class Planet{

2.    protected void revolve(){

3.    }

4.    abstract void rotate();

5. }

6.

7. class Earth extends Planet{

8.    private void revolve(){

9.    }

10.    private void rotate(){

11.    }

12. }

Which two modifications enable the code to compile? (Choose two.)

* A. Make the method at line 8 protected.
* B. Make the method at line 8 public.
* C. Make the method at line 10 protected.
* D. Make the method at line 4 public.
* E. Make the method at line 2 public.

Question #160

Given the following classes:  
  
    public class Employee {

        public int salary;

    }

    public class Manager extends Employee {

        public int budget;

    }

    public class Director extends Manager {

        public int stockOptions;

    }

And this main method:

        public static void main (String [] args ) {

            Employee employee = new Employee();

            Employee manager = new Manager();

            Employee director = new Director();

            // line n1

        }

Which two options compile when placed at line n1 of the main method? (Choose two.)

* A. director.stockOptions = 1\_000;
* B. employee.salary = 50\_000;
* C. manager.budget = 1\_000\_000;
* D. manager.stockOption = 500;
* E. employee.budget = 200\_000;
* F. director.salary = 80\_000;

Question #161

Given:

public class App{

    int count;

    public static void displayMsg(){

        System.out.println("Welcome Visit Count: " + count++);

    }

    public static void main(String[] args) {

        App.displayMsg();

        displayMsg();

    }

}

What is the result?

* A. Welcome Visit Count:0 Welcome Visit Count: 1
* B. Compilation fails at line n2.
* C. Compilation fails at line n1.
* D. Welcome Visit Count:0 Welcome Visit Count: 0

Question #162

Given:

interface I {

    public void displayI();

}

abstract class C2 implements I {

    public void displayC2() {

        System.out.println("C2");

    }

}

class C1 extends C2 {

    public void displayI() {

        System.out.print("C1");

    }

}

And the code fragment:

    C2 obj1 = new C1();

    I obj2 = new C1();

    C2 s  = (C2) obj2;

    I t = obj1;

    t.displayI();

    s.displayC2();

What is the result?

* A. C1C2
* B. C1C1
* C. Compilation fails.
* D. C2C2

Question #163

Given the code fragment:

    public static void main(String[] args) {

        int ii = 0;

        int jj = 7;

        for (ii = 0; ii < jj; ii = ii + 2) {

            System.out.print(ii + " ");

        }

    }

What is the result?

* A. 2 4
* B. 0 2 4 6
* C. 0 2 4
* D. Compilation fails.

Question #164

Given:

class X {

    int i;

    static int j;

    public static void main(String[] args) {

        X x1 = new X();

        X x2 = new X();

        x1.i = 3;

        x1.j = 4;

        x2.i = 5;

        x2.j = 6;

        System.out.println(

            x1.i + " " +

            x1.j + " " +

            x2.i + " " +

            x2.j

        );

    }

}

What is the result?

* A. 3 4 5 6
* B. 3 4 3 6
* C. 5 4 5 6
* D. 3 6 5 6

Question #165

Given the code fragment: int[] array = {1,2,3,4,5};  
  
And given the requirements:  
1. Process all the elements of the array in the reverse order of entry.  
2. Process all the elements of the array in the order of entry.  
3. Process alternating elements of the array in the order of entry.  
Which two statements are true? (Choose two.)

* A. Requirements 1, 2, and 3 can be implemented by using the enhanced for loop.
* B. Requirements 1, 2, and 3 can be implemented by using the standard for loop.
* C. Requirements 2 and 3 CANNOT be implemented by using the standard for loop.
* D. Requirement 2 can be implemented by using the enhanced for loop.
* E. Requirement 3 CANNOT be implemented by using either the enhanced for loop or the standard for loop.

Question #166   
Given:

public class FieldInit {

    Character c;

    boolean b;

    float f;

    void printAll() {

        System.out.println("c = " + c);

        System.out.println("b = " + b);

        System.out.println("f = " + f);

    }

    public static void main(String[] args) {

        FieldInit t = new FieldInit();

        t.printAll();

    }

}

What is the result?

1. c=

b=false

f=0.0

1. c=null

b=true

f=0.0

1. c=0

b=false

f=0.0F

1. c=null

b=false

f=0.0

Question #167

Given:

    public static void main(String[] args) {

        String [] [] chs = new String[5][2];

        chs [0] = new String [2];

        chs [1] = new String [5];

        int i = 97;

        for (int a = 0; a < chs.length; a++) {

            for (int b = 0; b <chs.length; b++) {

                chs[a] [b] = "" + i;

                i++;

            }

        }

        for (String[] ca : chs) {

            for (String c : ca) {

                System.out.print(c + " ");

            }

            System.out.println();

        }

    }

What is the result?

* A. 97 98 99 100 null null null
* B. 97 98 99 100 101 102 103
* C. Compilation fails.
* D. A NullPointerException is thrown at runtime.
* E. An ArraylndexOutOfBoundsException is thrown at runtime. //chs.length=5

Question #168

Given the code fragment:

    public static void main(String[] args) {

        String str1 = "Java";

        String str2 = new String("java");

        //line n1

            System.out.println("Equal");

        } else {

            System.out.println("Not Equal");

        }

    }

Which code fragment, when inserted at line n1, enables the App class to print Equal?

* A. str1.toLowerCase(); if (str1 == str2)
* B. if (str2.equals(str1.toLowerCase()))
* C. str1.toLowerCase(); if (str1.equals(str2))
* D. if (str1.toLowerCase() == str2.toLowerCase())

Question #169

Given the code fragment:

    public static void main(String[] args) {

        String[][] arr = {{"A", "B", "C"},{"D", "E"}};

        for(int i = 0; i < arr.length; i++){

            for (int j = 0; j<arr[i].length; j++){

                System.out.print(arr[i][j] + " ");

                if(arr[i][j].equals("B")){

                    continue;

                }

            }

            continue;

        }

    }

What is the result?

* A. A B C
* B. A B C D E
* C. A B D E
* D. Compilation fails.

Question #170

Given the code fragment:

        LocalDateTime dt = LocalDateTime.of(2014, 7, 31, 1, 1);

        dt.plusDays(30);

        dt.plusMonths(1);

        System.out.println(dt.format(DateTimeFormatter.ISO\_DATE\_TIME));

What is the result?

* A. An exception is thrown at runtime.
* B. 2014-07-31T01:01:00
* C. 2014-07-31
* D. 2014-09-30T00:00:00

Question #171

Given the code fragment:

  class Employee {

        private String name;

        private int age;

        private int salary;

        public Employee (String name, int age) {

            setName (name)

            setAge (age)

            setSalary (2000) ;

        }

        public Employee (String name, int age, int salary) {

            this (name, age);

setSalary (salary);

        }

        //getter and setter methods for attributes go here

        public void printDetails () {

            System.out. println (name + " : " + age + " : " + salary);

        }

Test.java -

class Test {

    public static void main (String[] args) {

    Employee el = new Employee () ;

    Employee e2 = new Employee ("Jack", 50);

    Employee e3 = new Employee ("Chloe", 40,5000);

    el. printDetails () ;

    e2. printDetails () ;

    e3. printDetails () ;

}

Which is the result?

* A. Compilation fails in the Employee class. B. Uma imagem com texto, Tipo de letra, branco, design

  Descrição gerada automaticamenteC. Uma imagem com texto, Tipo de letra, ferramenta

  Descrição gerada automaticamente
* D. Compilation fails in the Test class.
* E. Both the Employee class and the Test class fail to compile.

Question #172

Given:

    public static void doSum(Integer x, Integer y) {

        System.out.println("Integer sum is " + (x +  y));

    }

    public static void doSum(double x, double y) {

        System.out.println("double sum is " + (x +  y));

    }

    public static void doSum(float x, float y) {

        System.out.println("float sum is " + (x +  y));

    }

    public static void main (String[] args) {

        doSum(10, 20);

        doSum(10.0, 20.0);

    }

What is the result?  
A. float sum is 30.0

double sum is 30.0  
  
B.  
  
C.  
  
D.  


Question #173

Given the code fragment:  
    public static void main(String[] args) {

        int x = 6;

        while (isAvailable(x)) {

            System.out.print(x); // Replace this, by Option A "System.out.print (--x);"

        }

    }

    public static boolean isAvailable(int x) {

        return --x > 0 ? true : false;

    }

Which modification enables the code to print 54321?

* A. Replace line 6 with System.out.print (--x);
* B. At line 7, insert x --;
* C. Replace line 5 with while (is Available(--x)) {
* D. Replace line 12 with return (x > 0) ? false : true;

Question #174

Given:

class A {

    public void test() {

        System.out.println("A");

    }

}

class B extends A {

    public void test() {

        System.out.println("B");

    }

}

public class C extends A {

    public void test() {

        System.out.println("C");

    }

    public static void main(String[] args) throws InterruptedException {

        A b1 = new A();

        A b2 = new C();

        A b3 = (B) b2; //line n1

        b1 = (A) b2; //line n2

        b1.test();

        b3.test();

    }

}

What is the result?

* A. A B
* B. A C
* C. C C
* D. A ClassCastException is thrown only at line n1.
* E. A ClassCastException is thrown only at line n2.

Question #175

Given the code fragment:

    public static void main(String[] args) {

        int num[][] = new int[3][1];

        for (int i = 0; i < num.length; i++) {

            for (int j = 0; j < num[i].length; j++) {

                num[i][j] = 10;

            }

        }

    }

Which option represents the state of the num array after successful completion of the outer loop?  
A.  
Uma imagem com texto, Tipo de letra

Descrição gerada automaticamente  
B.  
Uma imagem com texto, Tipo de letra

Descrição gerada automaticamente  
C.  
Uma imagem com texto, Tipo de letra

Descrição gerada automaticamente  
D.  
Uma imagem com texto, Tipo de letra, branco

Descrição gerada automaticamente

Question #176

    public static void main(String[] args) {

        int ans;

        try {

            int num = 10;

            int div = 0;

            ans = num / div;

        } catch (ArithmeticException ae) {

            ans = 0; //line n1

        } catch (Exception e) {

            System.out.println("Invalid calculation"); //line n2

        }

        System.out.println("Ans = " + ans);

    }

Given the code fragment:  
  
What is the result?

* A. Answer = 0
* B. Invalid calculation
* C. Compilation fails only at line n1.
* D. Compilation fails only at line n2. //ans not inicialized
* E. Compilation fails at line n1 and line2.

Question #177

Given:

Base.java:

class Base {

    public void test() {

        System.out.println("Base ");

    }

}

DerivedA.java:

class DerivedA extends Base {

    public void test() {

        System.out.println("DerivedA ");

    }

}

DerivedB.java:

public class DerivedB extends DerivedA {

    public void test() {

        System.out.println("DerivedB ");

    }

    public static void main(String[] args) {

        Base b1 = new DerivedB();

        Base b2 = new DerivedA();

        Base b3 = new DerivedB();

        Base b4 = b3;

        b1 = (Base) b2;

        b1.test();

        b4.test();

    }

}

What is the result?

* A. Base DerivedA
* B. Base DerivedB
* C. DerivedB DerivedB
* D. DerivedB DerivedA
* E. A ClassCastException is thrown at runtime.
* ?. DerivedA DerivedB

Question #178

Given the definitions of the MyString class and the Test class:

    class MyString {

        String msg;

        MyString(String msg) {

            this.msg = msg;

        }

    }

    public class Test {

        public static void main (String[] args) {

            System.out.println("Hello " + new StringBuilder("Java SE 8"));

            System.out.println("Hello " + new MyString("Java SE 8").msg);

        }

    }

What is the result?  
A.  
  
B.  
  
C.  
  
D. Compilation fails at the Test class

Question #179

Given:

    public class Test {

        public static void main(String[] args) {

            Test ts = new Test();

            System.out.print(isAvailable + " ");

            isAvailable = ts.doStuff();

            System.out.println(isAvailable);

        }

        public static boolean doStuff() {

            return !isAvailable;

        }

        static boolean isAvailable = true;

    }

What is the result?

* A. Compilation fails.
* B. false true
* C. true false
* D. true true
* E. false false

Question #180

Given the code fragments:

class Student{

    String name;

    int age;

}

And:

public class Question\_121 {

    public static void main(String[] args) {

        Student s1 = new Student();

        Student s2 = new Student();

        Student s3 = new Student();

        s1 = s3;

        s3 = s2;

        s2 = s2;

    }

}

Which statement is true?

* A. After line 11, three objects are eligible for garbage collection. //end main
* B. After line 11, two objects are eligible for garbage collection. //safe choice
* C. After line 11, one object is eligible for garbage collection.
* D. After line 11, none of the objects are eligible for garbage collection.

Question #181

Given:

    public static void main(String[] args) {

        String ta = "A ";

        ta = ta.concat("B ");

        String tb = "C ";

        ta = ta.concat(tb);

        ta.replace(“B”, “C”);

        ta = ta.concat(“D”);

        System.out.println(ta);

    }

What is the result?

* A. A B C D
* B. A C D
* C. A C D D
* D. A B C C
* E. A B D C

Question #182

Given the code fragment:

10.    public static void main(String[] args) {

        List<String> lst = Arrays.asList("A", "B", "C", "D");

        Iterator<String> itr = lst.iterator();

        while(itr.hasNext()){

            String e = itr.next();

            if (e == "C") {

                break;

            }

else {

 19.            continue;

                System.out.print(e);

            }

        }

    }

Which action enables it to print AB?

* A. Comment lines 18 to 21.
* B. Comment line 20.
* C. Comment line 19.
* D. Comment line 16.

Question #183

Given the definitions of the Bird class and the Peacock class:

    class Bird {

        public void fly() {

            System.out.print("Fly.");

        }

    }

    class Peacock extends Bird {

        public void dance() {

            System.out.print("Dance.");

        }

    }

and the code fragment:

      /\*insert code snippet here\*/

p.fly();

        p.dance();

Which code snippet can be inserted to print Fly.Dance. ?

* A. Bird p = new Peacock();
* B. Bird b = new Bird(); Peacock p = (Peacock) b;
* C. Peacock b = new Peacock (); Bird p = (Bird) b;
* D. Bird b = new Peacock (); Peacock p = (Peacock) b;

Question #184

Given the code fragment:

    public static void main(String[] args) {

        int x;

//insert code here

Which code fragment inserted at line 10 print \*\*\*\*?

        /\* Option A - Ok \*/

        x = 3;

        do {

            System.out.print("\*");

            x--;

        } while (x >= 0);

        /\* Option B - It does not enter the loop. \*/

        x = 0;

        do {

            System.out.print("\*");

            x++;

        } while (x >= 3);

        /\* Option C - It does not enter the loop. \*/

        x = 0;

        do {

            System.out.print("\*");

            ++x;

        } while (x > 3);

        /\* Option D - I only printed two asterisks \*/

        x = 3;

        do {

            System.out.print("\*");

            x--;

        } while (x != 1);

        /\* Option E - Ok \*/

        x = 0;

        do {

            System.out.print("\*");

        } while (x++ < 3);

Question #185

Given the code fragment:

    public static void main(String[] args) {

        int x = 10;

        int y = ++x;

        int z = 0;

        if(y >= 10 | y <= ++x) {

            z = x;

        } else {

            z = x++;

        }

        System.out.println(z);

    }

What is the result?

* A. 11
* B. 10
* C. 12
* D. A compile time error occurs.

Question #186

Given the code fragment:

    public static void main(String[] args) {

        int a = 3;

        int b = 2;

        int c = 1;

        int r1 = a \* b / c + 1;

        int r2 = a / b \* c + 1;

        int r3 = a \* (b / (c + 1));

        System.out.println(r1 + " : " + r2 + " : " + r3);

    }

What is the result?

* A. 2 : 7 : 3
* B. 7 : 7 : 9
* C. 2 : 7 : 0
* D. 7 : 2 : 3

Question #187

Given:

class LogFileException extends Exception {

}

class AccessViolationException extends RuntimeException {

}

public class App {

    public static void main(String[] args) throws LogFileException {

        App obj = new App();

        try {

            obj.open();

            obj.process();

                //insert code here

        } catch (Exception e) {

            System.out.println("Completed.");

        }

    }

13.    void process() {

        System.out.println("Processed");

        throw new LogFileException();

    }

    void open() {

        System.out.println("Opened");

        throw new AccessViolationException();

    }

}

Which action fixes the compiler error?

* A. At line 17, add throws AccessViolationException
* B. At line 13, add throws LogFileException
* C. At line 2, replace throws LogFileException with throws AccessViolationException
* D. At line 7, insert throw new LogFileException ();

Question #188

Given the code fragment:

    public static void main(String[] args) {

        int array1[] = {1, 2, 3};

        int array2[] = new int[5];

        array2 = array1;

        for (int i : array2) {

            System.out.print(i + " ");

        }

        System.out.println();

        int array3[] = new int[3];

        array3 = array2;

        for (int i : array3) {

            System.out.print(i + " ");

        }

    }

What is the result?

* A. 1 2 3 0 0 1 2 3 0 0
* B. An Exception is thrown at run time.
* C. 1 2 3 0 0 1 2 3
* D. 1 2 3 1 2 3

Question #189

class E1 extends Exception {

}

class E2 extends RuntimeException {

}

public class App {

    public void m1() {

        System.out.println("m1.Accessed.");

        throw new E1();

    }

    public void m2() {

        System.out.println("m2.Accessed.");

        throw new E2();

    }

    public static void main(String[] args) {

        int level = 1;

        App obj = new App();

        if (level <= 5 && level >= 3) {

            obj.m1();

        } else {

            obj.m2();

        }

    }

}

Which statement is true?

* A. The program prints m1.Accessed.
* B. The program fails compile due to the unhandled E1 exception.
* C. The program prints m2.Accessed.
* D. The program fails to compile due to the unhandled E2 exception.

Question #190

Given the code fragment:

        char colorCode = 'y';

        switch (colorCode) {

            case 'r':

                int color = 100;

                break;

            case 'b':

                color = 10;

                break;

            case 'y':

                color = 1;

                break;

        }

18.        System.out.println(color);

What is the result?

* A. It results in a compile time error at line 18.
* B. It results in a compile time error at line 9.
* C. It prints : 1
* D. It results in a compile time error at lines at lines 12 and 15.

Question #191

Given: MISSING IMAGE

class Alpha {

    int ns;

    static int s;

Alpha(int ns){

        if(s < ns) {

            s = ns;

            this.ns = ns;

        }

    }

    void doPrint() {

        System.out.println("ns= " + ns + " s = " + s);

    }

}

And: MISSING IMAGE

    public static void main (String[] args) {

        Alpha ref1 = new Alpha(100);

        Alpha ref2 = new Alpha(50);

        Alpha ref3 = new Alpha(125);

        ref1.doPrint();

        ref2.doPrint();

        ref3.doPrint();

    }

What is the result?

* A. ns = 100 s =125 ns = 0 s = 125 ns = 125 s = 125
* B. ns = 50 s = 50 ns = 125 s = 125 ns = 0 s = 125
* C. ns = 50 s = 125 ns = 125 s = 125 ns = 0 s = 125
* D. ns = 50 s = 50 ns = 125 s =125 ns = 100 s =100

Question #192

Which two array initialization statements are valid? (Choose two.)

* A. int array[] = new int[3] {1, 2, 3};
* B. int array[] = new int[3]; array[0] = 1; array[1] = 2; array[2] = 3;
* C. int array[3] = new int[] {1, 2, 3};
* D. int array[] = new int[3]; array = {1, 2, 3};
* E. int array[] = new int[] {1,2,3};

Question #193

Given the class definitions:  
class C1 {}  
class C2 extends C1 {}  
class C3 extends C2 {}  
and the code fragment:  
16. C1 obj1 = (C1) new C2();  
17. C2 obj2 = (C2) new C3();  
18. C2 obj3 = (C2) new C1(); 🡨 this one  
19. C3 obj4 = (C3) obj2;

Which line throws ClassCastException?

* A. line 18
* B. line 17
* C. line 19
* D. line 16

Question #194

Which two features can be implemented in a Java application by encapsulating the entity classes used? (Choose two.)

* A. data validation
* B. compile time polymorphism
* C. data hiding
* D. data abstraction
* E. data memory optimization

Question #195

Given the code fragment:

    public static void main(String[] args) {

        int sum = 0;

        for (int xVal = 1; xVal <= 5; xVal++) {

            sum = sum + xVal;

        }

        System.out.println("The sum of " + xVal + " numbers is: " + sum);

    }

What is the result?

* A. The sum of 4 numbers is: 10
* B. A compile time error occurs.
* C. The sum of 5 numbers is: 10
* D. The sum of 5 numbers is: 15

Question #196

    public static void main (String[] args) {

        List<String> arrayList = new ArrayList<>();

        arrayList.add("Tech");

        arrayList.add("Expert");

        arrayList.set(0, "Java");

        arrayList.forEach(a -> a.concat("Forum")); //does not do anyt

        arrayList.replaceAll(s -> s.concat("Group"));

        System.out.println(arrayList);

    }

What is the result?

* A. [JavaForum, ExpertForum]
* B. [JavaGroup, ExpertGroup]
* C. [JavaForumGroup, ExpertForumGroup]
* D. [JavaGroup, TechGroup ExpertGroup]

Question #197

Given the code fragment:

    public static void menu(){

        System.out.println("1. left 2. right 0. stop");

    }

    public static void main(String[] args) {

        int option;

        //insert code here

    }

and the requirements of the application:  
1. It must display the menu.  
2. It must print the option selected.  
3. It must continue its execution till it reads '0'.  
Which code fragment can be used to meet the requirements?  
A.  
Uma imagem com texto, Tipo de letra, recibo, branco

Descrição gerada automaticamente  
B.  
Uma imagem com texto, recibo, Tipo de letra, branco

Descrição gerada automaticamente  
C.  
Uma imagem com texto, recibo, Tipo de letra, branco

Descrição gerada automaticamente  
D.  
Uma imagem com texto, recibo, Tipo de letra, branco

Descrição gerada automaticamente

Question #198

Which two initialization statements are valid? (Choose two.)

* A. Boolean available = ג€TRUEג€:
* B. String tmpAuthor = author, author =ג€Mc Donaldג€;
* C. Double price = 200D;
* D. Integer pages = 20;

Question #199

Examine the given definitions:  
Uma imagem com texto, captura de ecrã, Tipo de letra, documento

Descrição gerada automaticamenteand the code fragment:  
Uma imagem com texto, Tipo de letra, recibo, branco

Descrição gerada automaticamente  
Which statement is true about the implementation of Object-Oriented Programming concepts in the given code?

* A. Polymorphism, abstraction, and encapsulation are implemented.
* B. Only polymorphism and inheritance are implemented.
* C. Polymorphism, inheritance, and abstraction are implemented.
* D. Only inheritance and encapsulation are implemented.

Question #200

Given:

class Product {

    int id;

    String name;

    Product (int id, String name){

        this.id = id;

        this.name = name;

    }

}

public class Test {

    public static void main(String[] args) {

        List <Product> Ist = new ArrayList<>();

        Ist.add(new Product(10, "IceCream"));

        Ist.add(new Product(11, "Chocolate"));

        Product p1 = new Product(10, "IceCream");

        System.out.println(Ist.indexOf(p1));

    }

}

What is the result?

* A. true
* B. false
* C. -1
* D. 0

Question #201

Given the code fragment:

class StockRoom {

    private int stock = 10;

    public void purchase(int qty) { stock += qty; }

    public void sell (int qty) { stock -= qty; }

    public void printStock (String action) {

        System.out.println( action + ":" + qty + " items. Stock in Hand: " + stock); // qty needs to be static variable to compile.

    }

    public static void main(String[] args) {

        StockRoom k1 = new StockRoom();

        k1.sell(5);

        k1.printStock("Sold");

        StockRoom k2 = new StockRoom();

        k2.purchase(5);

        k2.printStock("Purchased");

    }

}

You want the code to print:  
  
Sold: 5 items. Stock in Hand: 5 -  
Purchased: 5 items. Stock in Hand: 10?  
Which action enables the code to print this?

* A. Declare the stock variable and the purchase(), sell(), and printStock() methods static.
* B. Declare the stock variable and the printStock() method static.
* C. Declare the stock and qty variables and the printStock() method static.
* D. Declare the stock variable static.

Question #202

Given:

class S1 {

    protected void display(int x) {

        System.out.println("Parent" + x);

    }

}

public class S2 extends S1 {

    public void display(int x, int y) {

        this.display(x);

        display(y);

        super.display(y);

    }

    public void display(int x) {

        System.out.println("Child" + x);

    }

}

public class Test {

    public static void main(String[] args) {

        S2 sobj = new S2();

        sobj.display(10, 100); // Child10  Child100    Parent100

    }

}

and the code fragment:  
S2 sobj = new S2();  
sobj.display(10, 100);  
What is the result?

* A. Child 10 Child 100 Parent 100
* B. Parent 10 Child 10 Parent 1000
* C. Child 10 Parent 100 Parent 100
* D. A compile time error occurs.

Question #203

Given the code fragment:

    List<String> Ist = Arrays.asList("EN", "FR", "CH", "JP");

    Iterator<String> itr = Ist.iterator();

    while(itr.hasNext()) {

        String e = itr.next();

        if(e == "CH" ) {

            break;

        }

        System.out.println(e + " ");

What is the result?

* A. EN FR JP
* B. EN FR
* C. CH
* D. EN FR CH

Question #204 Given:

    class Vehicle {

        Vehicle(){

            System.out.println("Vehicle");

        }

    }

    class Bus extends Vehicle {

        Bus(){

            System.out.println("Bus");

        }

    }

    public class Test {

        public static void main(String[] args) {

            Vehicle v = new Bus();

        }

    }

What is the result?

* A. Vehicle Bus
* B. Bus Vehicle
* C. Bus
* D. The program doesn't print anything

Question #205 Given:

    class P1{}

    class P2 extends P1 implements I1 {}

    interface I1{}

    public class Test {

        public static void main(String[] args) {

            P1 obj = new P1();

            P2 obj2 = new P2();

            I1 obj3 = new P2();

            boolean r1 = obj instanceof P2;

            boolean r2 = obj2 instanceof P1;

            boolean r3 = obj3 instanceof I1;

            System.out.println(r1 + ":" + r2 + ":" + r3);

        }

    }

What is the result?

* A. true:false:true
* B. false:true:true
* C. false:true:false
* D. true:true:false

Question #206 Given:

public class App {

    String greet = "Welcome!";

    public App() { // Constructor

        String greet = "Hello!";

    }

    public void setGreet() {

        String greet = "Good Day!";

    }

    public static void main (String[] args){

        App t = new App();

        String greet = "Good Luck!";

        System.out.println(t.greet);

    }

}

What is the result?

* A. Good Luck!
* B. Good Day!
* C. Welcome!
* D. Hello!

Question #207

class OraString {

    String s;

    public boolean equals (OraString str) { //equals not overr.

        return this.s.equalsIgnoreCase(str.toString());

    }

    OraString(String s){

        this.s = s;

    }

}

public class Test {

    public static void main(String[] args) {

        String s1 = "Moon";

        OraString s2 = new OraString("Moon");

        if((s1 == "Moon") && (s2.equals("Moon"))) {

            System.out.println("A");

        } else {

            System.out.println("B");

        }

        if (s1.equalsIgnoreCase(s2.s)) {

            System.out.println("C");

        } else {

            System.out.println("D");

        }

    }

}

What is the result?

* A. AC
* B. BD
* C. BC
* D. AD

Question #208

Given:

public class App {

    int foo;

    static int bar;

    static void process(){

        foo += 10; //error: making static reference to non-static field

        bar += 10;

    }

    public static void main(String[] args) {

        App firstObj = new App();

        App.process();

        System.out.println(firstObj.bar);

        App secondObj = new App();

        App.process();

        System.out.println(secondObj.bar);

    }

}

What is the result?

* A. 10
* B. A compile time error occurs
* C. 20
* D. 10

Question #209

Given:

    public static void main(String[] args) {

        int price = 1000;

        int qty = 2;

        String grade = "2";

        double discount = 0.0;

        switch(grade) {

            case "1":

                discount = price \* 0.1;

                break;

            case "2":

                discount = price \* 0.5;

16.             continue;

            default:

                System.out.println("Thank You!");

        }

        System.out.println(discount);

    }

Which statement is true?

* A. The program executes and prints: 500.0
* B. Commenting line 16 enables the program to print: Thank You! 500.0
* C. Commenting line 13 enables the program to print: Thank You! 500.0
* D. The program executes and prints: Thank You! 500.0

Question #210

Which statement is true about the main() method?

* A. It is invoked by JRE
* B. It is a final method
* C. It returns true if it is executed successfully at run time
* D. It must be defined within a public class

Question #211

Given the code fragment:

    public static void main(String[] args) {

        String str="Sweet Sweat";

        String str2=str.trim().charAt(6)+ "" + str.indexOf("Sw",1);

        System.out.println(str2);

    }

What is the result?

* A. S 6
* B. S 5
* C. s-1
* D. w 7

Question #212

Given the code fragment:

    public static void main(String[] args) {

        int x;

        //insert code here

    }

Which code fragment prints Welcome 100?  
A.  
Uma imagem com texto, Tipo de letra, branco, algebra

Descrição gerada automaticamente  
B.

        for (x = 100; x <= 100; x++) { //assignment ++x or x++ made at the end of for loop

            System.out.println(x);

        }

C.  
Uma imagem com texto, recibo, Tipo de letra, branco

Descrição gerada automaticamente  
D.  
Uma imagem com texto, recibo, Tipo de letra, branco

Descrição gerada automaticamente

Question #213

Given these requirements:  
✑ Bus and Boat are Vehicle type classes.  
✑ The start() and stop() methods perform common operations across the Vehicle class type.  
✑ The ride() method performs a unique operations for each type of Vehicle.  
Which set of actions meets the requirements with optimized code?

* A. 1. Create an abstract class Vehicle by defining start() and stop() methods, and declaring the ride() abstract method. 2. Create Bus and Boat classes by inheriting the Vehicle class and overriding the ride() method.
* B. 1. Create an interface Vehicle by defining start() and stop() methods, and declaring the ride() abstract method. 2. Create Bus and Boat classes by implementing the Vehicle class.
* C. 1. Create an abstract class Vehicle by declaring stop(), start(), and ride() abstract methods. 2. Create Bus and Boat classes by inheriting the Vehicle class and overriding all the methods.
* D. 1. Create an interface Vehicle by defining default stop(), start(), and ride() methods. 2. Create Bus and Boat classes by implementing the Vehicle interface and overriding the ride() method.

Question #214

Given:

    class Cart {

        Product p;

        double totalAmount;

    }

    class Product {

        String name;

        Double price;

    }

    public class Shop {

        public static void main (String[] args) {

            Cart c = new Cart();

            System.out.println(c.p + ":" + c.totalAmount);

        }

    }

What is the result?

* A. null:null:0.0
* B. null:null
* C. <<HashCode>>:0.0
* D. null:0.0

Question #215

Given:

class Book {int pages;}

public class App{

    int count;

    public void method (Book x, int k) {

        x.pages = 100;

        k = 200;

    }

    public static void main(String[] args) {

        App obj = new App();

        Book objBook = new Book();

        System.out.println(objBook.pages + ":" + obj.count);

        obj.method(objBook, obj.count);

        System.out.println(objBook.pages + ":" + obj.count);

    }

}

What is the result?

* A. 0:0 100:0
* B. null:0 100:0
* C. 0:0 100:200
* D. null:null 100:null

Question #216

Given:  
public class Test{

//line n1

}  
Which two code fragments can be inserted at line n1? (Choose two.)

* A. String str = ג€Javaג€;
* B. for(int iVal = 0; iVal <=5; iVal++){}
* C. Test() {}
* D. package p1;
* E. import java.io.\*;

Question #217

Examine the content of App.java:  
Uma imagem com texto, Tipo de letra, captura de ecrã, recibo

Descrição gerada automaticamente  
Which is true?

* A. The App.class file is stored within the p1 folder. The Test.class file is stored within the p2 sub-folder of p1.
* B. The App class is accessible within the Test class without an import statement.
* C. import p1.App; is used to access the App class within the Test class.
* D. It is optional to have the package statement as the first line of class definitions.

Question #218

Given the code fragment:  
public static void main(String[] args) {

Predicate<Integer> p = (n) -> n % 2 == 0;

// insert code here

}  
Which code snippet prints true?

* A. Boolean s = p.apply(101); System.out.println(s);
* B. Boolean s = p.test(100); System.out.println(s);
* C. Uma imagem com texto, Tipo de letra, escrita à mão, branco

  Descrição gerada automaticamente
* D. System.out.println(p.apply(100));

Question #219, #220 repeated

Question #221

Which two code fragments cause compilation errors? (Choose two.)

* A. double y1 = 203.22; float fit = y1;
* B. float fit = (float) 1\_11.00;
* C. Float fit = 100.00;
* D. int y2 = 100; float fit = (float) y2;
* E. float fit = 100.00F;

Question #222

Given the code fragment:

abstract class Robot implements Speakable {

    public void process(); // replace public void process(); with public abstract void process();

}

class Humanoid extends Robot {

    public void speak(String s) {

        System.out.println(s);

    }

    public void process() {

        System.out.println("Helping... ");

    }

}

interface Speakable {

    public void speak(String s);

}

public class RobotApp {

    public static void main(String[] args) {

        Robot r = new Humanoid();

        r.process();

        r.speak("Done");

    }

}

Which action enables the code to print Helping`¦ Done?

* A. replace class Humanoid extends Robot { with abstract class Humanoid extends Robot {
* B. replace interface Speakable { with abstract class Speakable
* C. replace public void process(); with public abstract void process();
* D. replace abstract class Robot implements Speakable { with class Robot extends Speakable {

Question #223

Given:

public class App {

    String myStr = "9009";

    public void doStuff (String str) {

        int myNum =0;

        try {

            String myStr = str;

            myNum = Integer.parseInt(myStr);

        } catch (NumberFormatException ne) {

            System.err.println("Error");

        }

        System.out.println("myStr: " + myStr + ", myNum: " + myNum);

    }

    public static void main (String[] args) {

        Test obj = new Test();

        obj.doStuff("7007");

    }

}

What is the result?

* A. myStr: 7007, myNum: 7007
* B. Error
* C. myStr: 9009, myNum: 7007
* D. myStr: 7007, myNum: 9009

Question #224

Given the content from the Tree.java and Plant.java files:

package branch;

import root.\*;

public class Plant extends Tree {

    public static void main(String[] args) {

        Plant t = new Plant();

        t.m1();

        t.m1(); t.m3();

        t.m1(); t.m3(); t.m4();

        t.m1(); t.m4();

    }

}

package root;

public class Tree {

    public void m1() {}

    private void m2() {}

    protected void m3() {}

    void m4() {};

}

and the code fragment:  
9. Plant t = new Plant();  
10. /\* insert code fragment here \*/  
Which code fragment is valid at line 10?

* A. t.m1();
* B. t.m1(); t.m3();
* C. t.m1(); t.m3(); t.m4();
* D. t.m1(); t.m4();

Question #225

Given the content of the Customer.java and Trader.java files:  
Uma imagem com texto, captura de ecrã, Tipo de letra

Descrição gerada automaticamente  
Which two methods can be overridden in the Trader class from the Customer class? (Choose two.)

* A. m2()
* B. m3()
* C. m4()
* D. m1()

Question #226

Given the code fragment:

public class StockRoom {

    private int stock = 10; // declare as static

    private int qty; // declare as static

    public void purchase(int q) {stock += q; this.qty = q;}

    public void sell(int q) {stock -= q; this.qty = q;}

    public void printStock(String action ) { // declare as static

        System.out.println(action + ":" + qty + " items. Stock in Hand: " + stock);

    }

    public static void main (String[] args) {

        StockRoom k1 = new StockRoom();

        k1.sell(5);

        StockRoom.printStock("Sold");

        StockRoom k2 = new StockRoom();

        k2.purchase(5);

        StockRoom.printStock("Purchased");

    }

}

You want the code to print:  
  
Sold: 5 items. Stock in Hand: 5 -  
Purchased: 5 items. Stock in Hand: 10?  
Which action enables the code to print this?

* A. Declare the stock variable and the purchase(), sell(), and printStock() methods static.
* B. Declare the stock and qty variables and purchase()and sell()methods static.
* C. Declare the stock and qty variables and the printStock() method static.
* D. Declare the stock and qty variables static.

Question #227

Given the code fragment:

    public static void main(String[] args) {

        StringBuilder sObj = new StringBuilder("Java");

        System.out.println(sObj.indexOf("the"));

        sObj.append("the Great");

        System.out.println(sObj.indexOf("the"));

    }

What is the result?

* A. 5
* B. false  
  6
* C. –1  
  5
* D. –1  
  –1
* ? -1

4

Question #228

Given the code fragment:

    public static void main(String[] args) {

        int[] codes = new int[5];

        codes[1] = 10;

        codes[2] = 20;

        codes[3] = 30;

        codes[4] = 40;

14.     codes[5] = 50;

        for (int i = 1; i < codes.length; i++) {

            System.out.println(codes[i] + ":");

        }

    }

What is the result?

* A. An ArrayIndexOutOfBoundsException is thrown at line 10.
* B. 10 : 20 : 30 : 40 : 50 :
* C. An ArrayIndexOutOfBoundsException is thrown at line 14.
* D. The code fails to compile.

Question #229

Given the code fragment:

public static void main(String[] args) {

        int[] stack = {10, 202, 30};

        int size = 3;

        int idx = 0;

        //line n1

        System.out.println("The Top element: " + stack [idx]);

}

Which code fragments, inserted at line n1 independently, print The Top element: 30? (Choose two.)

* A. Uma imagem com texto, Tipo de letra, branco, escrita à mão

  Descrição gerada automaticamente
* B. Uma imagem com texto, Tipo de letra, branco, escrita à mão

  Descrição gerada automaticamente
* C. Uma imagem com texto, Tipo de letra, branco, escrita à mão

  Descrição gerada automaticamente
* D. Uma imagem com texto, Tipo de letra, branco, tipografia

  Descrição gerada automaticamente
* E. Uma imagem com texto, Tipo de letra, branco, recibo

  Descrição gerada automaticamente

Question #230

Given:

public class App {

    static float height;

    public float jump(long x) {

        System.out.println("Jump 1");

        return height + x;

    }

    public float jump(int x) {

        System.out.println("Jump 2");

        return height + x;

    }

    public float jump(float x) {

        System.out.println("Jump 3");

        return height + x;

    }

    public static void main(String[] args) {

        App obj = new App();

        obj.jump(10);

        obj.jump(100);

        obj.jump(10.01f);

    }

}

What is the result?

* A. Jump1 -  
  Jump1 -  
  Jump1
* B. Jump2 -  
  Jump2 -  
  Jump3
* C. Jump3 -  
  Jump3 -  
  Jump3
* D. Jump1 -  
  Jump1 -  
  Jump3

Question #231

Given the code from the App.java.file:  
  
public class App { public static void main(String[] args) { System.out.println(args[0]+":"+args[1]); } }  
  
Which command prints SE 8 Standard in the console window?

* A. java App “SE 8 Standard”
* B. java App “SE 8”, “Standard”
* C. java App SE 8 Standard
* D. java App “SE 8” Standard

Question #232 same as #199

Question #233

Given the content from the Tree.java and Plant.java files:

package root;

public class Tree {

    public void m1() {}

    private void m2() {}

    protected void m3() {}

    void m4() {};

}

package branch;

import root.\*;

public class Plant extends Tree {

    public static void main(String[] args) {

      public void m1(){}

public void m2(){}

public void m3(){}

public void m4(){}

    }

}

and the code fragment:

Tree t = new Plant();

10. //insert code fragment here  
  
Which code fragment is valid at line 10?

* A. t.m1();
* B. t.m1();  
  t.m3();
* C. t.m1();  
  t.m2();  
  t.m3();  
  t.m4();
* D. t.m1();  
  t.m3();  
  t.m4();

Question #234

Given the code fragment:  
  
Uma imagem com texto, Tipo de letra, captura de ecrã, branco

Descrição gerada automaticamente  
  
Which inserted code prints DCBA?

* A. Uma imagem com texto, Tipo de letra, captura de ecrã, número

  Descrição gerada automaticamente
* B. Uma imagem com texto, Tipo de letra, captura de ecrã, file

  Descrição gerada automaticamente
* C. Uma imagem com texto, Tipo de letra, captura de ecrã, file

  Descrição gerada automaticamente
* D. Uma imagem com texto, Tipo de letra, captura de ecrã, file

  Descrição gerada automaticamente