ATMIC NETWORKS
YOUR GUIDE TO GLOBAL CERTIFIATION

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Question: 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.printin (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.

Answer: C

Question: 2

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.

Answer: B

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.printIn(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.

Answer: D

Question: 4

Given the code fragment:

```
public static void main (String[] args) {
     Short si = 200;
     Integer s2 = 400;
     Long s3 = (long) si + s2;                    //line nl
     String s4 = (String) (s3 * s2); //line n2
     System.out.printIn ( "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.

Answer: C

Question: 5

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

Answer: A

Using the private modifier is the main way that an object encapsulates itself and hide data from the outside world.

Reference:

Question: 6

Given the code fragment:

```
abstract class Planet {
    protected void revolved {                    //line nl

    abstract void rotated;                       //line n2
}

class Earth extends Planet {
    void revolved {                              //line n3
    |

    protected void rotate d {                    //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.

Answer: C,D

Question: 7

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) {                  //line nl
            this.trans = trans;
      }

      Car(String type, int maxSpeed, String trans) {
            super(type, maxSpeed); // line n2 this.trans =
            trans;
```

And given the code fragment:

7. Car cl = new Car ("Auto");
8. Car c2 = new Car("4W", 150, "Manual");
9. System.out.printin(cl.type + " " + cl.maxSpeed + " " + cl.trans)
10. System.out.printIn(c2.type + " " + c2.maxSpeed + " " + c2.trans)

What is the result?

A. 4W 100 Auto4W 150 Manual
B. null 0 Auto4W 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

Answer: E

Question: 8

Given:

```
class Caller { private void init () {
        System.out.printIn{"Initialized");

    private void start (} { init () ;
    System.out.printin("Started"); } }

public class TestCall {
    public static void main(String[] args) { Caller c =
        new Caller(};
        c.start(}; // line nl
        c.init(); // line n2 }
}
```

What is the result?

A. Compilation fails at line n1.
B. InitializedStartedInitialized
C. InitializedStarted
D. Compilation fails at line n2.

Answer: D

Question: 9

Given these two classes:

```
public class Customer {
      ElectricAccount acct = new ElectricAccount();

      public void use Elect ricity (double kWh){ acct.addKWh
           (kWh);
```

```
public class ElectricAccount { private double kWh;
      private double rate = 0.07; private double bill;

      //line nl
```

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?

```
public void addKWh(double kWh) { this.kWh += kWh;
     this.bill = this.kWh*this.rate }
```

```
public void addKWh(double kWh) {
     if (kWh > 0) {
          this.kWh += kWh;
          this.bill = this.kWh * this.rate
     }
}
```

```
private void addKWh(double kWh) {
```

```
        if (kWh > 0) {
            this.kWh += kWh;
            this.bill = this.kWh*this.rate
        }
    }

    public void addKWh(double kWh) { if (kWh > 0) {
            this.kWh += kWh;
            setBill (this.kWh);
    }
    public void setBill (double kWh) { bill = kWh*rate;
    }
```

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

Answer: A

Question: 10

Given the code fragment:

```
public static void main (String[] args) {
      StringBuilder sb = new StringBuilder("Java" ) ;
      String s = "Java" ;

      if (sb.toString().equals(s.toString()))          {
           S y s t e m. o ut. p r i nt 1 n (" M at ch 1") ;
      } else if (sb.equals (s)) {
           System.out.printin ("Match 2");
      } else {
           S y s t em. o ut. p r i nt 1 n (" M o M at c h ")
           ;

}
```

What is the result?

A. Match 1

B. Match 2

C. No Match

D. A NullPointerException is thrown at runtime.

Answer: A

Question: 11

Given:

```
interface Readable {
     public void readBook();
     public void setEookMark () ;
}

abstract class Book implements Readable {          // line nl
     public void readBook() { }
     // line n2
}'

class EBook extends Book {                         // line n3
     public void readBook() { }
     // line n4
}
```

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 nl` with:

```
class Book implements Readable {
```

B) At `line n2` insert

```
public abstract void setEookMark();
```

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

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

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

Answer: D

Question: 12

Given:

```
public static void main (String[] args) { String ta = "A ";
    ta = ta.concat ("B ”) ;
    String tb = rrC rr;
    ta = ta. concat (tb) ;
    ta.repl ace (TCTf TDT);
    ta = ta. concat (tb) ;
    System, out. print! n (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

Answer: C

Question: 13

Given:

```
class CD {
      i nt r;
      CD (mt r) { this.r=r; }

class DVD extends CD { i nt c;
      DVD(i nt r f i nt c) { // line nl } }
```

And given the code fragment:

```
DVD dvd = 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;

   8) super(r) ; this (c) ;

C C) super (r) ; this.c = c;

r D) this.c = r; super (c) ;
```

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

Answer: C

Question: 14

Given the code fragment:

```
int a[] = {1, 2, 3, 4, 5 } ; for (XXX) I
      System.out.print(a[e]);
```

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

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

B int e = 0: e < 5; e + = 2

C mte = I:e< = 5;e += 1

D

mt e = 1; e < 5; e+ =2

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

Answer: B

Question: 15

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.

Answer: A

Question: 16

Given the code fragment from three files:

SalesMan. java:

```
package sales;
public class SalesMan { }
```

Product.java:

```
package sales.products;
public class Product { }
```

Market.java:

```
1. package market;
2. // insert code here
3. public class USMarket {
4.      SalesMan sm;
5.      Product p;
```

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

```
A) import sales.*;

B) import java.sales.products . *

C) import sales; import sales.products;

D) import sales.*; import products.*;

E) import sales.*; import sales.products.*;
```

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

E. Option E

Answer: E

Question: 17

Given this class:

```
public class CheckingAccount {
      public int amount;
      public CheckingAccount(int amountH 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))
      //line nl
      System.out.printin(acct.getAmount());
}
```

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

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

Answer: B,D,F

Question: 18

Given the code fragment:

```
String shirts[][] = new String[2][2];
shirts [ CH [ 0] = "red " ;
```

```
shirts[0][l] = "blue";
shirtsil][0] = "small";
shirts [ 1] [ 1] = "medium";
```

Which code fragment prints red: blue: small: medium?

```
for (int index = 1; index < 2; index++) {
    for (int idx = 1; idx < 2; idx++) {
        System.out.print(shirts[index] [idx] + ":" }
```

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

```
for (String [] c : shirts) { for (String s : c) {
        System.out.print(s + ":") }
```

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

    index++;
```

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

Answer: D

Question: 19

Given the code fragment:

```
public class Test{

    void readcard(int cardNo) throws Exception { System.out.printin
        ("Reading Card");
    }
```

```
void checkcard(int cardNo) throws RuntimeException { // line nl
    System.out.printin("Checking Card");

public static void main (St ring[] 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.

o Compilation fails only at line n3.

E Compilation fails at both line n2 and line n3

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: D

Question: 20

Given the code fragment:

```
3.  public static void main (String[] args) {
4.  .    i nt x = 5;
5.  while (isAvailable(x)) {
6.            System.out.print (x) ;
7-
8-       }
    }
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;

Answer: B

Question: 21

Given the code fragment:

```
 4. public static void main (St ring[] args) {
 5.      boolean opt = true;
 6.      switch (opt) {
 7.           case true:
 8.              System.out.print("True");
 9.              break;
10.           default:
11.                System.out.print("***");
12.       }
13. System. out. print In ( "Done rr) ;
14. }
```

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.

Answer: A

Question: 22

Given the following main method:

```
public static void main(String[] args) { int num = 5;
    do {
        System, out. print (num-- +" rr) ;
    } 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

Answer: D

Question: 23

Given the code fragment:

```
i nt x = 10 0; int a = x++; int b = + + x; int c = x++;
int d = (a < b) ? (a < c) ? a: S y s t e m. o ut. p r i nt
1 n (d) ;
```

What is the result?

```
(b <c )? b: c: x;
```

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

Answer: E

Question: 24

Given:

```
public class Test {

    public static void main (String[] args) {

        String[] [] chs = new String[2] [] ;
        chs[0] = new String[2];
        chs[l] = 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 + " ");
                }
                Syst em.out.p ri nt1n ();
        }
```

What is the result?

A. 97 9899 100 null null null
B. 97 9899 100 101 102 103

C. Compilation fails.
D. A NullPointerException is thrown at runtime.
E. An ArrayIndexOutOfBoundsException is thrown at runtime.

Answer: A

Question: 25

Given the code fragment:

```
public class Employee {
    String name;
    boolean co nt ract;
    double salary;
    Employee () {
        // line nl
    }
    public String toString(){
        return name + ":" + contract + ":" + salary;

    public static void main (String[] args) { Employee e =
        new Employee ();
        // line n2
        S y s t e m. o ut. p r i nt (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 = "Jo e";
this.contract - true;
this.salary = 100;
```

□ C) Replace line ni with:

```
this.name = new St ring ( "Joe") ;
this.contract = new Boolean (true); this.salary =
```

```
new Double(100);
```

□ D) Replace line ni with:

```
name = "Joe";
contract = TRUE;
salary = 10 0.0 f;
```

□ E) Replace `line nl` with: `this("Joe", true, 100);`

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: A,C

Question: 26

Given the code fragment:

```
public static void main (String[] args) { List<String>
    names = new ArrayListO () names.add ( "Robb") ;
    names.add ("Bran") ;
    names.add ( "Rick") ;
    names.add ( "Bran") ;

    if (names.remove ( "Bran")) { name s . remo ve ("Jo n
        ") ;
    }
    System.out.printIn (names);
```

What is the result?

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

Answer: A

Question: 27

Given:

```
class A {
        public A() {
             System. out. print (hrA ") ;
```

class B extends A{ public B () {

```
System.out.print("B       //line nl
```

```
  class C extends B{

        public C () {
             System. out - print (rrC rr) ;

        public static void main (String[]
             args) { C c - new C () ;

                                          //line n2
```

What is the result?

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

Answer: C

Question: 28

Given:

```
class X { static int i; i nt j ;
     public static void main (String[1 args) { X xl = new X
          ■) ;
          X x2 = new X () ; xl. i = 3; xl. j = 4; x2. i = 5
          ; x2. j = 6;
          Syst em. o ut.  p r i nt 1 n (
               xl.i  + " rr +
               xl.j  + " "  +
               x2.i  + " r  +
               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

Answer: C

Question: 29

Given the code fragment:

```
1. public class Test {
2.      public static void main(St ring[] args) {
3.          /* insert code here */
4.          array[0]=10;
5.          array[1]=20;
6.          System.out.print(array[0] + ": "farray[1])
7.      }
3. }
```

Which code fragment, when inserted at line 3, enables the code to print 10:20?

A int[] array = new int[l]

B

```
int[] array;
array = new int [2] ;
```

C int array = new int[2];

D

```
int array [1];
```

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

Answer: B

Your Code ..,

```
1  ' public class Test {
Z *      public static void main (StringO args) {
3              into array;
4              array = new int[ZJ;
5              array[0j=10;
6              array[l]=Z0;
7              System.out.printCarray[0J-":"+array[lj);
```

```
S      }
9  }
10
```

CommandLine Arguments ...

Stdin Inputs...

Result..

Question: 30

Given the code fragment:

```
public static void main (String[] args) { St ring [j arr = {
     "A"f *f^ ^f "D"}; for (int i = 0; i < arr.length; i!+) {
          System, out. print (arr [i] + ,r ") ;
          if (arr11I.equals ("C")) { co nt i nue ;

          System.out.printin("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

Answer: C

Question: 31

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

Answer: A,C,E

Reference:

Question: 32

Given the code from the Greeting.Java file:

```
public class Greeting {
    public static void main (String[J args) {
        System.out.printin("Heilo " + args[0]J

}
```

Which set of commands prints Hello Duke in the console?

```
C A) javac Greeting
     java Greeting Duke

   8) javac Greeting.java Duke
     java Greeting

f C) javac Greeting. java
     java Greeting Duke
```

```
Dj javac Greeting.java
   java Greeting.class Duke
```

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

Answer: C

Question: 33

Given:

```
class Alpha { int ns; static int s; Alpha(int ns) { if (s < ns) { s = ns;
this.ns = ns;
          } } void do Print () {
          System.out.printIn ("ns = " + ns + " s = " + s) }
```

And,

```
public class TestA { public static void main(String[] args) {
          Alpha refl = new Alpha(50);
          Alpha ref2 = new Alpha(125);
          Alpha ref3 = new Alpha(100); refl. do Print. () ; ref 2 . do Print
() ; ref 3 . do Print () ; } }
```

What is the result?

r A) ns = 50 s = 125 ns = 125 s = 125 ns = 100 s = 125

C B) ns =50 s = 125 ns = 125 s = 125 ns = 0 s = 125

C C) ns = 50 s = 50 ns = 125 s = 125

ns = 100 s = 100

C D) ns = 50 s = 50 ns = 125 s = 125 ns = 0 s = 125

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

Answer: B

Question: 34

Given the code fragment:

1.

```
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

Answer: C

Question: 35

Given the code fragment:

```
LocalDate datel = Local Date, now ();
LocalDate date2 = LocalDate. of (6, 20, 2014 );
Local Date date3 = LocalDate,parse(*2014-06-20”, DateTimeFormatter.ISO_DATE);
System.out.printin("datel = " + date!);
System.out.printin("date2 = ” + date2);
System.out.println ("date3 = " + date3);
```

Assume that the system date is June 20, 2014. What is the result?

A

datel = 2014-06-20 date2 = 2014-06-20
date3 = 2014-06-20

B

datel = 06/20/2014
date2 = 2014-06-20 date3 = Jun 20, 2014

c Compilation fails.

o An exception is thrown at runtime

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

Answer: A

Question: 36

Given the code fragment:

```
7.   StringBuilder sbl = new StringBuilder("Duke") ;
8.   String strl = sbl. toString () ;
9.   // insert code here
10.  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";

Answer: A

Question: 37

Given:

```
public class Test {
      public static void main(String[] args} { Test ts =
            new Test();
            System.out.print(isAvailable + " ᵘ) isAvailable=
            ts.doStnff();
            System.out.printin(isAvaliable);

      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

Answer: B

Question: 38

Given the code fragment:

```
public static void main (St ring[] args) { double discount
     = 0;
     int. qty = Integer. parselnt (args [ 0] ) ;
     //line nl;
```

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.)

□ A)
```
if (qty >= 90) { discount =0.5; } if (qty > 80 && qty < 90) { discount
=0.2; }
```

□ B)
```
discount = (qty >= 90) ? 0.5 : 0;
discount = (qty > 80) ? 0.2 : 0;
```

□ C)
```
discount = (qty >= 90) ? 0.5 : (qty > 80)? 0.2 : 0
```

□ D)
```
if (qty > 80 && qty < 90) { discount = 0.2;
} else { discount = 0;

if (qty >= 90) { discount = 0.5; } else {
     discount = 0;
```

□ E)
```
discount = (qty > 80) ? 0.2 : (qty >= 90) ? 0.5 : 0
```

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: A,C

Question: 39

Given:

```
public class Test {

    public static void main(String[] args) {
        if (args[0].equals("Hello”) ? true : false) {
            System.out.printin("Success”);
        ) else {
            System.out.printin("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

Answer: A

Question: 40

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

A. Objects cannot 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.

Answer: B,C,F

Reference:

Question: 41

Given the following code:

```
public static void main (String[] args){
     St ring[] planets = {"Mercury", "Venus", "Earth", "Mars"}

     System.out.printin(planets.length);
     System.out.printIn (planets[1].length () ) ;
```

What is the output?

A. 44
B. 35
C. 47
D. 54
E. 45
F. 421

Answer: E

Question: 42

You are developing a banking module. You have developed a class named ccMask that has a maskcc method.

Given the code fragment:

```
class CCMask {
     public static String maskCC(String creditcard) { String x = "XXXX-
          XXXX-XXXX-";
          //line nl

     public static void main (String[] args) {
          System.out.printIn(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.)

□ A)
```
StringBuilder sb = new StringBuilder(creditCard); s
b.s ubstri ng (15, 19); return x + sb;
```

□ B)
```
return x + creditcard.substring(15f 19);
```

□ C)
```
StringBuilder sb = new StringBuilder (x); sb.append
(creditcard, 15, 19);
return sb. to St ri ng () ;
```

□ D)
```
StringBuilder sb = new StringBuilder (creditCard);
StringBuilder s = sb.insert (0, x) ;
return s.toString ();
```

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

Answer: B,C

Question: 43

Given:

Acc.java:

```
package pl;
public class Acc {
      int p;
      private int q;
      protected int r;
      public int s;
```

Test.java:

```
package p2;
import pl.Acc;
public class Test extends Acc {
      public static void main (String[] args) { Acc ob;j =
            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.

Answer: B

Question: 44

Given:

Base, java:

```
class Base {
      public void test (){
            System.out.printin("Base ");
```

DerivedA.java:

```
class DerivedA extends Base {
     public void test (){
          S ystem.o ut.p ri nt1n("DerivedA ");
```

Deri vedB. java:

```
class DerivedB extends DerivedA {
     public void test (){
          System.out.printin("DerivedB ");

     public static void main (String[] args) {
          Base bl = new DerivedB();
          Base b2 = new DerivedA();
          Ease b3 = new DerivedB();
          bl = (Base) b3;
          Base bl = (DerivedA) b3;
          bl. test () ;
          b4.test () ;
```

What is the result?

A. BaseDerivedA
B. BaseDerivedB
C. DerivedBDerivedB
D. DerivedBDerivedA
E. A ClassCastException is thrown at runtime.

Answer: C

Question: 45

Given the code fragment:

```
public static void main(St ring[] args) {
     Arraytisn aiyList - RAW ArrayLi =1. () ;
     string J J myA.rray; try [
        while (true) !
             my List, add ("My St ri ng *) ;


     catch (Runtim^EKCcption re) 1
        System, out. printin ("Caught a RuntLuieSxception'¹ ;

     catch (Exception -I { system.out.printin("caught an Exception”);

     Sygtem.out.printIn("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.

Answer: C

Question: 46

Given:

```
System, out. print In ("5 + 2 = " + 3 + 4);
System.out.print In ( "5 + 2 = " + (3 + 4))
```

What is the result?

r A) 5 + 2 = 34
5 + 2 = 34

r 8) 5 + 2 + 3 + 4
5+2 = 7

r c) 7 =7
7 + 7

r D) 5 + 2 = 34
5 + 2 = 7

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

Answer: D

Question: 47

Given the code fragments:

Person.java:

```
public class Person {
    String name; int age;

    public Person(String nf int a) { name = n; age = a;
    r

    public String getName () { return name;
    }

    public int get Age () { return age;
    }
```

Test.java:

```
public static void checkAge(List<Person> list, Predicate<Person> predicate) { for
    (Person p : list) {
        if (predicate.test (p)) { System.out.printin (p.name + " ") ;
        } } }
public static void main(String[] args) {
    List<Person> iList = Arrays.asList(new Person("Hank", 45), new Person("Charlie
```

```
                                        ", 40), new Person("Smith", 38));
    //line nl
```

Which code fragment, when inserted at line n1, enables the code to print Hank?

A

```
checkAge (iList, ( ) -> p. get Age ( ) > 40);
```

B

```
checkAge(iList, Person p -> p.getAge( ) > 40);
```

C

```
checkAge (iList, p -> p.getAge ( ) > 40);
```

D

```
checkAge(iList, (Person p) -> { p.getAge() >40; })
```

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

Answer: C

Question: 48

Given the code fragment:

```
public static void main (String[] args) {
    String[][] arr= {{"A", "B", "C"}, { "D", "E"}};
    for (int. i = 0; i < arr. length; ill) { for
          (int j = 0; j < arr[i].length; j+t) {
            System.out.print(arr[i][j] + " ");
            if (arr [i] [j] . equals (rpB") ) { break;
            }

        continue;
  }
}
```

What is the result?

A. A B C

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

Answer: C

Question: 49

Given the code fragment:

```
public static void main (String[] args) {
      String str = " ,r;
      str. trim () ;
      System, out. printin (st r. equals ( " ") + ,p " + str. isEmpty () )
```

What is the result?

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

Answer: C

Question: 50

Given the code fragment:

```
public class App :
     public static void main(St ring[] args) { String strl
          = "Java";
          String str2 = new St ring ( "java") ;
          //line nl

              System.out.printIn("Equal") ;
          } else {
              System.out.println("Not Equal");

        }
}
```

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

```
r A) St r1.toLowerCase(); if (strl == str2)

r B) if (str2.equals(strl.toLowerCase()))

C C) St r1.toLowerCase() ;
       if (strl.equals(strl.toLowerCase()))

C D) if (strl. toLowerCase () == st r2. toLowerCase () )
```

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

Answer: B

Question: 51

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] + " ");

} while (i < arr.length + 1);
```

What is the result?

A. 1 2 3 4followed by an ArrayIndexOutOfBoundsException
B. 1 2 3

C. 1 2 3 4
D. Compilation fails.

Answer:

Console 8 Console 9 B

Console 10

12?

```
Completed with exit code: 0
```

Question: 52

Given the code fragment:

```
String[] strs = new String[2];
int idx = 0;
for (String s : strs) { strs[idx].concat("
        element " t ldx) idx++;

for (idx = 0; idx < strs.length; idx++) {
        System.out.printIn(st rs [idxj);
```

What is the result?

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

Answer: D

Question: 53

Given:

```
class Vehicle {
    i nt x;
    Vehicle 0{ this(10);    // line nl
    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 to StringO { return super.x + ": rr +
        this.y;
```

And given the code fragment:

And given the code fragment:

```
Vehicle y = new Car();
System.out.printIn(y);
```

What is the result?

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

Answer: D

Question: 54

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

MyString. java:

```
package pl;
class MyString {
        String msg;
         MyString (String msg) { this.msg = msg;
```

Test.java:

```
package pl;
public class Test {
        public static void main (String[] args) {
                System.out.printin("Hello " + new StringBuilder("Java SE 8")) System.out.printin ( "Hello " + new MyString
                ("Java SE 8"));

}
```

What is the result?

A

Hello Java SE 8
Hello Java SE 8

B

Hello java. lang. StringBuilder@«hashcodel»
Hello pl. MySt ring@«hashcode2»

C

Hello Java SE 8
Hello pl. My St ring @«7?as *he ode*»

o Compilation fails at the Test class

A. Option A
B. Option B

C. Option C
D. Option D

Answer: C

Question: 55

Given the code fragment:

```
3. public static void main(String[] args) {
4.     int iVar = 100;
5.     float fVar = 100.100f;
6.     double dVar = 123;
7.     fVar = iVar;
8.     iVar = fVar;
9.     fVar = dVar;
10.    dVar = fVar;
11.    iVar = dVar;
12.    dVar = iVar;
13. }
```

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

Answer: A,D,F

Question:56

Given:

Ma inTest, java:

```
public class MainTest {

    public static void main (int [] args) {
        System.out.printIn("int main " + args[0]);

    public static void main(Object[] args) {
        System.out.printIn ("Object main " + args[0]); }
    public static void main (String[] args) {
        System.out.printin ("String main " + args[0]);
```

and commands:

```
j avac MainTest.. j ava
java MainTest 123
```

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

Answer: C

Question: 57

Given the code fragment:

```
int num[] [] = new int[l] [3] ;
for (int i = 0; i < num.Length; i+tj {
    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?

num[0][0]=10
num[0][I]=10
num[0][2]=10

num[0][0]=10
num[I][0]=10
num[2][0]=10

num[0][0]=10
num[0][I]=0
num[0][2]=0

num[0] [0] =10 num[0][I]=10
num[0] [2] =10 num[0][3]=10
num[I][0]=0
num[I] [1] =0 num[I][2]=0
num[I][3]=0

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

Answer: A

Question: 58

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;
```

And this method:

```
public static void main (St ring[] args){ Planet[] planets = {
        new Planet ("Mercury", 0),
        new Planet("Venus", 0),
        new Planet ("Earth", 1),
        new Planet("Mars", 2)

    System.out.printIn (planets);
    System.out.printIn(planets[2] .name);
    System.out.printIn(planets[2].moons); }
```

What is the output?

planets
Earth
1

[LPlanets.Planet;@15db9742
Earth
1

[LPlanets.Planet;@15db9742
Planets.Planet@6d06d69c
1

[LPlanets.Planet;@15db9742
Planets.Planet@6d06d69c [LPlanets.Moon;@7852e922

[LPlanets.Planet;@15db9742 Venus 0

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: C

Question: 59

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

```
public abstract class Toy{
    public abstract int calculatePrice(Toy t);
    public void printToy(Toy t) ( /* code goes here */ )
```

B

```
public abstract class Toy (
    public int calculatePrice(Toy t) ;
    public void printToy(Toy t) ;
```

C

```
public abstract class Toy (
```

```
public int calculatePrice(Toy t);
public final void printToy(Toy t)( /* code goes here */ ) I
```

D

```
public abstract class Toy {
    public abstract int calculatePrice(Toy t) | /* code goes here */ ) public
    abstract void printToy(Toy t) ( /* code goes here */ )
```

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

Answer: A

Question: 60

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

Answer: C

Question: 61

Given this array:

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

Which two code fragments, independently, print each element in this array? (Choose two.)

```
for (int i : intArr) {
```

```
        System.out.print(intArr[i] +" "
```

```
for (int i : intArr) {
        System.out.print(i +" "
```

```
for (int i=0 : intArr) {
        System.out.print(intArr[i] +" ") i++;
```

```
for (int i=0; i < intArr.length; i++) { System, out. print (i +" ") ;
```

```
for (int i=0; i < intArr.length; i++) { System.out.print(intArr[i] +" ");
```

```
    for (int i; i < intArr.length; i++) { System.out.print(intArr[i] +" ");
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F

Answer: B,E

Question:62

Given the content of three files:

A.java:

```
public class A {
      public void      a0{}
      int a;
```

B.java:

```
public class B { private int private
          return     doStuft () {
          x++;       int x = 10 0;
```

C.java:

```
import java.io.*;
package pl;
class A {
      public void main(String fileName) throws lOException { }
```

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.

Answer: A

Question: 63

Given the code fragment:

```
int[] array        {1,      / 3f 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.

Answer: D,E

Question: 64

Given:

```
public class TestScope {
    public static void main (String[] args) { int varl =
        200;
        System.out.print (doCalc (varl)) ;
        System.out.print (" " + varl);
    static int doCalc (int varl) { varl = varl * 2;
        return varl;
```

What is the result?

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

Answer: A

Question: 65

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?

C A.) ArrayList<Animal> myList = new ArrayListO () ; my
Li st. add (new Tiger ()) ;

B) ArrayList<Hunter> myList = new ArrayListO () ;
myList. add (new Cat ()) ;

```
C) ArrayList<Hunter> myList = new ArrayListO () ;
   myList. add (new Tiger () ) ;

D) ArrayList<Tiger> myList = new ArrayListO () ;
   myList. add (new Cat. () ) ;

E) ArrayList<Animal> myList = new ArrayListO () ;
   myList. add (new Cat () ) ;
```

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: E

Question: 66

Which statement is true about Java byte code?

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

Answer: D

Java bytecodes help make "write once, run anywhere" possible. You can compile your program into bytecodes on any platform that has a Java compiler. The bytecodes can then be run on any implementation of the Java VM. That means that as long as a computer has a Java VM, the same program written in the Java programming language can run on Windows 2000, a Solaris workstation, or on an iMac.

Reference:

Question: 67

Given:

```
public class MarkList { int num;
    public static void graceMarks(MarkList obj4) { obj4.num
      += 10;
    }
    public static void main(String[] args) { MarkList
```

```
objl = new MarkList () ;
MarkList obj2 = objl;
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

Answer: A

Question: 68

Given:

```
public class Triangle ( static double area; int b = 2, h = 3;
    public static void main(String[] args) { double p, b, h;
                                                    //line nl
        if (area == 0) {
            b = 3;
            h = 4;
            p = 0.5;
        area = p * b * h; //line n2 )
        System.out.printin("Area is " + 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.

Answer: D

Question: 69

Given the code fragment:

```
public class Test {
      public static void main (String[] args) { //line nl
           switch (x) {
                case 1:
                     System, out.. print In ( "One ") ;
                     break;
                case 2:
                     System, out. print In ( "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");

Answer: A,B,F

Question: 70

Given:

```
public class App {

          public static void main (String[] args) {
               Boolean[] bool = new Boolean[2];

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

     System.out.printin(bool[0] + " " + bool[l]);
```

What is the result?

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

Answer: A

Question: 71

Given the following code for the classes MyException and Test:

```
public class MyException extends RuntimeException {}

public class Test (
    public static void main(String[] args) { try {
            methodi () ;
        }
        catch (MyException ne) {
            System.out.print("A");
        }
    }
    public static void methodi() { // line nl try {
            throw Math.random() >0.5 ?new MyException () :new RuntimeException () }
        catch (RuntimeException re) {
            System.out.print("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

Answer: B

Question: 72

Given:

```
public class App {
```

```
St ring mySt r = "7007 " ;

public void doStuff(St ring str) { int myNum = 0;
    try {
        String my Str = str;
        myNurn = Into ge r. p a r s e Int (my Str) ;
          } catch (NumberFormatException ne) {
            System.err.print1 n (" E r ro r ") ;

    System.o ut.p ri nt1n(
        "my Str: " + my Str + 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

Answer: C

Question: 73

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

Answer: B,D

Reference:

Question: 74

Given the code fragment:

```
int numsl[] - {lr 2f 3};
int nums2[] – {1, 2, 3, 4, 5};
nums 2 - nums 1;
for (int x : nums2){
      System.out.print (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.

Answer: A

Question: 75

Given:

```
public class Product { int id;
      String name;
       public Product (int id, String name) { this.id = id;
          t his. n am e = n am e ;
```

And given the code fragment:

```
4. Product pl = new Product (101, "Pen");
5. Product p2 = new Product (101, "Pen");
6. Product. p3 = pl;
7. boolean ansi = pl == p2;
8. boolean ans2 = pl.name.equals(p2.name);
9. System.out.print (ansi + ":" + ans2);
```

What is the result?

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

Answer: C

Question: 76

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 given the following main method:

```
public static void main (String[] args) { Employee
    employee = new Employee () ; Manager manager = new
    Manager (); Director director = new Director ();
    //line nl
```

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;

Answer: C,E

Question: 77

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

A.

```
public class Boat {

        public static void main. (String [] args) {
System.out.printin ("I float."); } }
```

B.

```
public class Cake { public static void main (String [] )
        {
              System.out.printin ("Chocolate"); } } C.
public class Dog { public void main (String [] args) {
```

```
System.out.printin ("Squirrel."); } } D.
public class Bank { public static void main (String ()
args) {
System.out.printin ("Earn interest.") } }
```

A. Option A

B. B. Option B

C. C. Option C

D. D. Option D

Answer: A

Reference:

Question: 78

Given the code fragment:

```
int n H □ = {{1, 3} r {2,4}};
for (int i = n.length-1; i >= 0; i—) { for (int y :
    nTi]) {
        System.out.print (y); }
}
```

What is the result?

A. 1324

E. 2313

F. 3142

G. 4231

Answer: D

Question: 80

Given the code fragment:

```
public static void main(String[] args) { try { int num = 10; int div = 0;
int ans = nim / div;
    } catch (ArithmeticExeption ae) {
        ans =0                                                    // line nl
    } catch (Exception e) {
        System.out.printin("Invalid calculation"); }
    System.out.printin("Answer = " + ans); // line n2 }
```

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.

Answer: E

Question: 81

Given:

```
public class MyField { int x;
        int y;
        public void doStuff(int x, int y) { x = x;
            y = this.y;
        } public void display () {
            System.out.print(x + " " + y + " : ") } public static void
        main(String[] args) {
```

```
MyField ml = new MyFieldO;
ml.x = 100;
ml.y - 200;
MyField m2 = new MyFieldO;
m2 .doStuff(ml.x, ml.y);
ml.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 :

Answer: B

Question: 82

Given:

```
public class Vowel { private char var;
    public static void main. (String [ ] args) { char varl
        = 'a*; char var2 = varl;
        var2 = ¹ e¹;

        Vowel obj1 = new Vowel();
        Vowel obj2 = objl;
        obj1.var = ¹o¹;
        obj 2.var = ’i';

          System.out.printin(varl + ", " +var2);
       System, out .print (obj 1 .var + ", "4- obj2.var); }
```

What is the result?

A. a, ei, i
B. a, eo, o
C. e, ei, i
D. a, ao, o

Answer: A

Question: 83

Given the code fragment:

```
if (aVar+ + < 10) {
     System, out. printin (aVar + ʳʳ Hello Universe!"); }
else {
     System.out.printin (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!

Answer: B

Question: 84

Given:

```
public class MyClass {
    public static void main(String[] args) {
        String s = "Java SE 8 1";
        int len = s.trim() .Length (j;
        System.out.print(len);
    }
}
```

What is the result?

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

Answer: B

Question: 85

Given:

```
public class Test {
    public static void main(String[] args) {
        boolean a = new Boolean(Boolean.valueOf(args[0]));
        boolean b = new Boolean(args[1));
        System.out.printin(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.

Answer: D

Question: 86

Given the code fragment:

```
public static void main(String[] args) { intJ L arr - new
    int [2] [4];
    aniO] = new int []{1, 3, 5f 7};
    arr[l] = new int ']{lr 3};
    for (int[] a : arr) { for (int i r a) {
            System.out.print(i+ " ") ;

        System.out.printin();
    }
```

What is the result?

A Compilation fails.

```
1 3
1 3
```

```
1 3
```

followed by an ArraylndexOutOfBoundsException

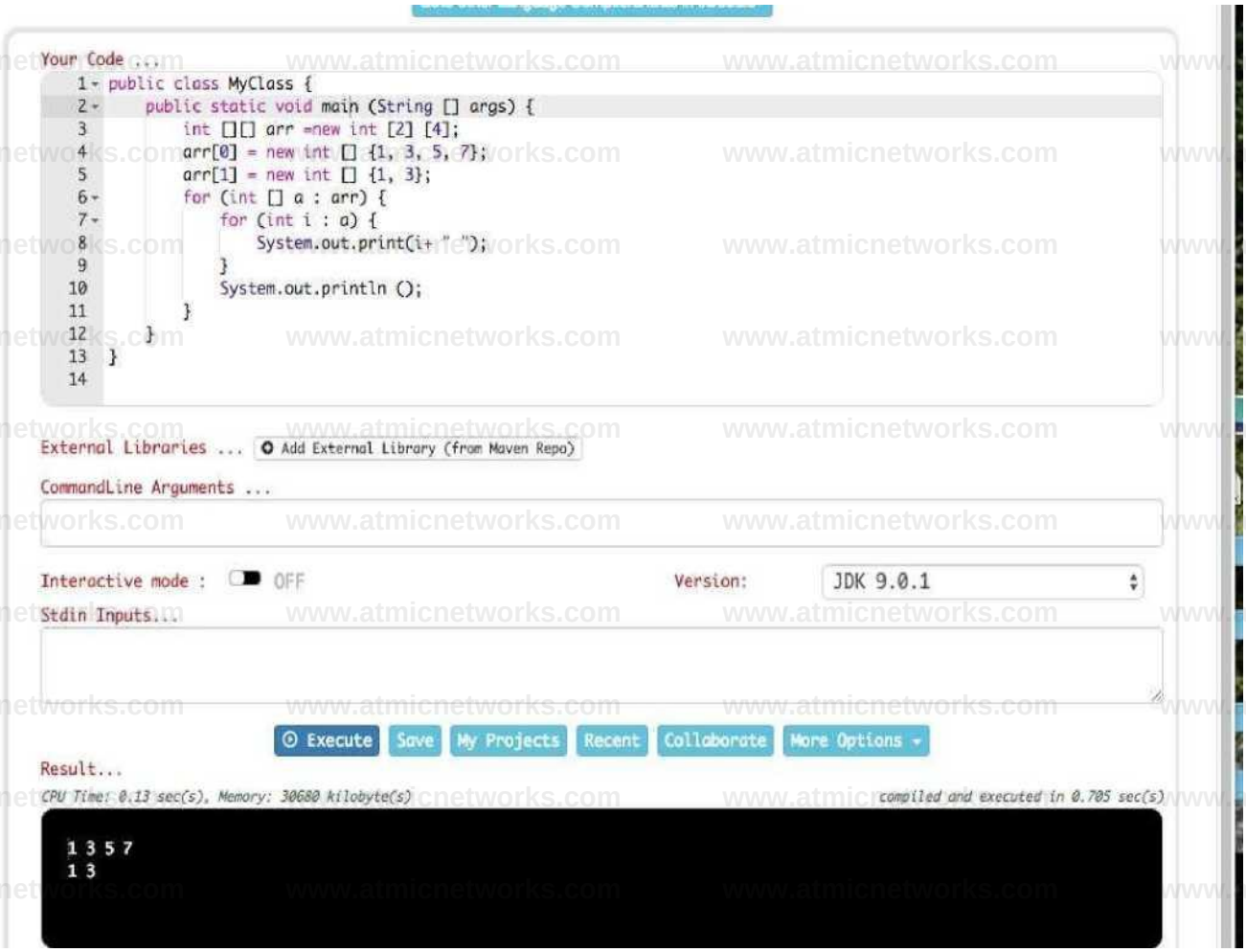
```
1 3
13 0 0
```

```
13 5 7
1 3
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: E

Question: 87



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

Answer: C

Given:

```
Siting 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 stuff.equals ("TV") ? res= "Walter" : stuff.equals ("Movie") ? res = "White" : res = "No Result";

B
```
res = stuff.equals ("TV") ? "Walter" else stuff.equals ("Movie")?
"White" : "No Result";
```

C
```
res = stuff.equals ("TV") ? stuff.equals ("Movie")? "Walter" :
   "White" : "No Result";
```

D
```
res = stuff.equals ("TV")? "Walter" : stuff.equals ("Movie")?
   "White" : "No Result";
```

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

Answer: D

Question: 89

Given:

```
class Patient {
    String name;
     public Patient (String name) {
          this.name = name;
```

And the code fragment:

```
8. public class Test {
9. public static void main (String [] args) {
10.        List ps = new ArrayList ();
11.        Patient p2 = new Patient      ("Mike);
12.        ps.add(p2);
13.
14.        // insert code here
15.
16.        if (f >= 0) {
17.             System.out.print ("Mike Found");
18.        |
19.      }
20. }
```

Which code fragment, when inserted at line 14, enables the code to print Mike Found?

A

```
int f = ps.indexOf (p2) ;
```

B

```
int f = ps.indexOf (Patient ("Mike") );
```

C

```
int f = ps.indexOf (new Patient "Mike") )
```

D

```
Patient p = new Patient("Mike");
int f = ps.indexOf(p)
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

Question: 90

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.

Answer: D

Reference:

Question: 91

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 nl

    WildAnimal (String type, int maxSpeed,String bounds) {
    //line n2 )
```

I

And given the code fragment:

```
 7. WildAnimal wolf = new WildAnimal("Long”);
 8. WildAnimal tiger = new WildAnimal("Feline", 80, "Short");
 9. System.out.printin(wolf.type + " " + wolf.maxSpeed + " " + wolf.bounds);
10. System.out.printin(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 0;
this.bounds = bounds;
```

B Replace line n1 with:

```
this.bounds = bounds;
super ();
```

c Replace line n2 with:

```
super (type, maxSpeed); this (bounds);
```

D Replace line n1 with:

```
this("Canine",60); this.bounds = bounds;
```

E Replace line n2 with:

```
super (type, maxSpeed);
this.bounds = bounds;
```

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: A,E

Question: 92

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.printin ("Invalid
    Name");

for (String p: pwd) { System.out.printin (p);
}
```

What is the result?

A. Invalid Name
B. Invalid Name omas
C. Invalid Name omas null null
D. omas ter seph

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

Answer: C

Question: 93

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.printin (name + " : " + age + " : " + salary) }
```

Test.java:

```
class Test {
     public static void main(String[] args) { Employee el =
          new Employee();
           Employee e2 = new Employee("Jack”, 50);
           Employee el = new Employee("Chloe", 40, 5000)

           el.printDetails ();
           e2.printDetails ();
           e3.printDetails();
     }
}
```

Which is the result?

A Compilation fails in the Employee class

B

```
null : 0: 0
Jack : 50 : 0
Chloe : 40 : 5000
```

```
null : 0 : 0
Jack : 50 : 2000
Chloe : 40 : 5000
```

o Compilation fails in the Test class.

E Both the Employee class and the Test class fail to compile

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: E

Question: 95

Given:

```
class A { public void test () { System.out,printin ("A"};

class B extends A { public void test () { System.out.printin ("&■');

public class C extends A { public void test () ( System.out.printin
("C");

    public static void main (String [] args) { A bl ^ new A () ;
        A b2 = new C () ;

        bl = (A) b2;                    //line nl
        A b3 = (B) b2;                  //line n2
        bl, test ();
        b3.test ();
```

What is the result?

A. AB
B. AC
C. CC
D. A ClassCastException is thrown only at line n1.
E. A ClassCastException is thrown only at line n2.

Answer: B

Question: 96

Given:

```
public class SumTest {

    public static void doSum(Integer x, Integer y) {
        System.out,printin("Integer sum is " + (x + y) ) ; }

    public static void doSum (double x, double y) {
        System.out.printIn("double sum is " + (x + y) ) ;


    public static void doSum (float x, float y) {
        System.out.printIn("float sum is " + (x + y) ) ; )

    public static void doSum (int x, int y) {
        System.out.printin ( "int sum is ” + (x + y) ) ;
    }

    public static void main(String[] args) {
        doSum(10, 20);
        doSum (10.0, 20.0);
```

What is the result?

A

```
int sum is 30
float sum is 30.0
```

B

```
int sum is 30
double sum is 30.0
```

c

```
integer sum is 30
double sum is 30.0
```

D

```
integer sum is 30
float sum is 30.0
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: D

Question: 97

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:

```
class Test{
    public static void main(String[] args) {
        int numbers[] = {12, 13, 42, 32, 15, 156, 23, 51, 12}; int[] keys =
        findMax(numbers);

    /* line nl */ {
        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)
E. static int[] findMax (int[] max)
F. static int findMax (int[] numbers)
G. final int findMax (int[])

Answer: C

Question: 98

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 constructors.
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.

Answer: A,C,E

Question: 99

Given the code fragment:

```
Public static void main (String [] args) {
    System.out.printin ("Result A " + 0 + 1) ;
    System.out.printin ("Result B " + (1) + (2) ); }
```

What is the result?

A

Result A 01
Result B 3

B

Result A 1
Result B 12

C

Result A 1
Result B 3

D

Result A 01
Result B 12

A. Option A

B. Option B

C. Option C

D. Option D

Answer: D

Question: 100

Given:

```
public class App { int count;
    public static void displayMsg () {
        count++;                                                    // line nl
    System.out.printin ("Welcome "+"Visit Count: "+count); // line n2 } public static void main (String [] args) {
        App.displayMsg ();                                          // line n3
        App.displayMsg ();                                          // 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:1Welcome Visit Count: 1
D. Welcome Visit Count:1Welcome Visit Count: 2

Answer: B

Question: 101

Given the code fragment:

```
public class Person. {
     String name; int age = 25;
     Person(String name) {                                          // line nl
          setName(name); }public Person(String name, int age) {
          Person(name);                                              // line n2
setAge(age); } //setter and getter methods go here public String
```

```
        show() { return name + " " + age; }public static void main(String[]
args) {
        Person pl = new Person("Jesse");
        Person p2 = new Person("Walter", 52);
        System.out.printin(pl.show() ) ;
        System.out.printin(p2.show() ) ;
    j}
```

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 25Walter 52

Answer: A

Question: 102

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 checkl = new Test ();
        Test check2 = new Test ();
        checkl.changeCount ();
        check2.changeCount ();
        System.out. print (checkl.count + " : " + check2.count)
```

What is the result?

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

Answer: B

Reference:

Question: 103

Given the code fragment:

```
public static void main(String[ ] args) { ArrayList<Integer> points
    = new ArrayListof); points.add(l) ;
    points*add(2) ;
    points.add(3) ;
    points.add(4) ;
    points.add(null);
    points.remove(l);
    points.remove(null);
    System.out.printin(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.

Answer: B

Answer: C

Question: 105

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

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

Answer: A,D

Question: 106

Given:

```
public class Fieldinit { char c;
    boolean b;
    float f;
    void printAll() {
        System.out.printin ("c = " + c);
        System.out.printin ("b = " + b);
        System.out.printin ("f = " + f);

    public static void main (String [] args) {
        Fieldinit f = new Fieldinit ();
        f.printAll ();
    }
}
```

What is the result?

c=
b = false f = 0.0

c= null b = true f = 0.0

c-0

b = false f = O.Of

c= null b = false f = O.OF

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

Question: 107

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.

Answer: B,C,D

Question: 108

Given the code fragment:

```
public static void main(String[] args) { int[] stack = {10,
     20, 30}; int size = 3; int idx = 0; /* line nl */
     System.out.print("The Top element: " + stack[idx]) }
```

Which code fragment, inserted at line n1, prints The Top element: 30?

A
```
do { idx++;
} while (idx >=size);
```

B
```
while (idx < size) { idx++;
```

C
```
do { idx++;
) while (idx <size -1) ;
```

D
```
do { idx++;
} while (idx<= size);
```

E
```
while (idx <= size -1) { idx++
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: E

Question: 109

Given the code fragment:

```
public static void main(String[] argsj { String myStr =
     "Hello World ";
     myStr.trim();
     int il = myStr . indexOf (11 ");
     System.out.printIn(il) ;
}
```

What is the result?

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

Answer: B

Question: 110

Given:

```
class Equal {
      public static void main (String [] args) { String strl =
      "Java";
      String [] str2 - { "J", "a", "v", V];
      String str3 = "";
       for (String str : str2) { str3 = str3+str;

       boolean bl = (strl.equalS(stt3});
       boolean b2 = (strl== Str3);
       Syatem+Qut*print (bl+\      n+b2);
```

I

What is the result?

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

Answer: B

Question: 111

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.

Answer: B,C

Question: 112

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 1= key) {
                continue;
                count+i ;
           }
      }
      System.out.print(count + " Found");
}
```

What is the result?

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

Answer: A

Question: 113

Given the code fragment:

```
LocalDate Time 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
D. 2014-09-30

Answer: A

Question: 114

Given:

```
public class Test {
     public static final int. MIN = 1;
     public static void main(String[] args) { int x =
          args.length;
          if(checkLimit(x)){          // line nl
               System.out.printin("Java SE");
          | else {
               System.out.printIn("Java EE");
          }
        public 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.

Answer: B

Question: 115

Given this class:

```
public class CheckingAccount { public int amount;
    //line nl
```

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?

At line nl insert:

```
public CheckingAccount(){ amount = 100;
}
```

At line n2 insert:

```
this.amount = 100
```

At line n2 insert: amount = 100;

At line nl insert:

```
public CheckingAccount(){ this.amount = 100;
}
```

At line n2 insert:

```
acct.amount = 100
```

At line nl insert: public CheckingAccount(){ acct.amount = 100;
}

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F

Answer: D,E

Question: 116

Given the code fragments:

```
Interface Exportable {
```

```
    Void export 0 ;
}

class Tool implements Exportable {
    protected void export 0 {          //line nl
        System . out. pr in tin (11 Tool: : export"} ;
}

class ReportTool extends Tool implements Exportable {
    public void exportO {                          //line n2
        System.out.printin("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::exportTool::export
C. Tool::exportTool:export
D. Compilation fails only at line n1.
E. Compilation fails at both line n1 and line n2.

Answer: E

Question: 117

Given the code fragment:

```
24.  float varl = (12_345.01 <= 123_45.00) 2 12_456 : 124_56.02f;
25.  float var2 = varl + 1024;
26.  System.out.print(var2);
```

What is the result?

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

Answer: C

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 tl = new Test(); tl.var = 300;
System.out.printIn(tl) Test t2 = new Test(); t2.stVar =
300 ;
System.out.printin(t2 )
```

What is the result?

A. 300:300200:300
B. 300:100200:300
C. 300:00:300
D. 100:300300:200

Answer: D

Question: 119

Given:

```
class C2 {
    public void displayC2() {
        System,^t.print (f"C2") ;
    }
1
interface I {
    public void displaylO rp
j
class Cl extends C2 irttplements I {
                public void displayI() {
            System . out .print {"C‘.")
j
```

And given the code fragment:

```
C2 obj 1 - new Cl 0 ;
I obj 2 = new Cl () ;

£2 a = obj2;
I t = objl;

t.displayl();
a, <5isplayC2 0
```

What is the result?

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

Answer: B

Question: 120

Given:

```
package clothing;
public class Shirt {
      public static String getColorO {
            return "Green";
```

Given the code fragment:

```
package clothing.pants;
// line nl
public class Jeans {
    public void matchshirt(){
```

```
        // line n2
        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();

Answer: A

Question: 121

Given the code fragments:

```
class Student { String name; int age;
}
```

And:

```
4. public class Test |
5. public static void main(String[] args) {
6.      Student si - new Student();
7.      Student s2 = new Studentt);
8.      Student s3 — new Student0;
9.      si  = s3;
10.     s3  = s2;
```

```
11.     $2  = null;
12. J
13-}
```

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.

Answer: C

Question: 122

Given the code fragment:

```
int wd - 0;
String days[] = (J'sun\ ''mon", "wed% "sat") far {String
a:days) { switch (a) { case "sat": case "sun": wd -= 1:
break;
        case "mon*: wd++;
        case "wed*: vd += 2/

Sys Lem. out.prrntln(wd);
```

What is the result?

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

Answer: A

Question: 123

Given the code fragment:

```
public static void main(String[ ] args) {
      LccalDate date = LocalDate.of(2012₅ 01ₑ 32);
      date.plusDays(10);
      System,cut.printin(date);
 }
```

What is the result?

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

Answer: D

Question: 124

Given:

```
public class App {
      public static void main(String[] args) {
            int i = 10;
            int j = 20;
            int k = ( j += i)/ 5;
            System.out.print(i + " : " + j + " : " + k);
```

What is the result?

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

Answer: A

Question: 125

Given:

```
interface Downloadable { public void download!);

interface Readable extends Downloadable {                    // line nl
        public void readBook();
}

abstract class Book implements Readable {                    // line n2
        public void readBook() {
              System.out.printIn("Read Book"); }

class EBook extends Book {                                  // line n3
        public void readBook() {
              System.out.printIn(“Read E-Eook");
        }
```

And given the code fragment:

```
Book bookl — new EBook ();
bookl.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.

Answer: E

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 setAreaf) { area = 1ength*height;
```

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?

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.

Answer: A,E

Question: 127

Given the code fragment:

13. List colors = new ArrayListO;

```
14.  colors,add("green"} ;
15.  colors.add ("blue");
16* colors*add ("red");
17.  colors.add("yellow");
18.  colors,remove(2};
13.  colors.add(3, "cyan");
20. System.out.print(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.

Answer: D

Question: 128

Given the code fragment:

```
abstract class Toy { int price; // Line nl
```

Which three code fragments are valid at line n1?

A

```
public static void insertToyO { /* code goes here */
```

B

```
final Toy getToyO { return new Toy();
```

```
public void printToyO;
```

D

```
public int calculatePrice() { return price;
```

E

```
public abstract int computeDiscount();
```

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: C,D,E

Question: 129

Given:

```
public class Test { int x, y;

    public Test(int x, int y) { initialize(xf y) ;

    public void initialize(int xr int y) { this. x = x *
        x;
        this■ y = y * y;

    public static void main(String[] args} { int x = 3r y
        = 5;
        Test obj = new Test(x, y);
        System.out.printin(x + " " + y) ;
```

What is the result?

A. Compilation fails.
B. 3 5
C. 0 0

D. 9 25

Answer: B

Question: 130

Given the code fragment:

```
public static void main(String[J args) i int array[] - [10# 20, 30, 40,
    50); int x = array.length;
    /* line nl •/
```

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.print(array[x]);
)
```

```
do {
    x—;
    System.out.print(array[x]);
} while (x >= 0);
```

```
while (x >= 0) {
    System.out.print(array[x]); x—;
}
```

```
do {
    System.out.print(array[x]);
    —x;
} while (x >= 0);
```

```
while (x > 0) {
```

```
        System.out.print(array[–x]);
```

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: A,E

Question: 131

Given:

```
class Test { int al;
    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.al = 11;
        String sb = "Hello";
        Integer i = 10;
        doProduct(i);
        doString(sb);
        doProduct(item, al);
        System.out.printin(i + " " + sb + " " + item.al);

}
```

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

Answer: E

Question: 132

Given the code fragment:

```
public static void, main (String [] args) {
      String[] arr = ("Hi", "How", "Are", "You");
      List<String> arrList = new ArrayListO (Arrays. asList (arr) ;
      if (arrList.removelf((String s) -> (return s.length() <= 2
          System.out.printIn(s + "removed")'
```

What is the result?

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

Answer: A

Question: 133

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

```
abstract class A3 {
      private static int i;
      public void dostuff(){}
      public A3 (){}
```

```
private class A2 {
    private static int i
    private A2(){}
```

```
final class Al { public Al(){}
```

```
class A4 {
      protected static final int i = 10
      private A4() {}
```

```
final abstract class A5 { protected static int i; void doStuff(){}
abstract void dolt();
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: C,D

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.printIn(" " + s.name), }
```

What is the result?

A. nullRichardDonald
B. RichardDonald
C. Compilation fails.
D. An ArrayIndexOutOfBoundsException is thrown at runtime.
E. A NullPointerException is thrown at runtime.

Answer: E

Question: 135

This grid shows the state of a 2D array:

0	0	
	X	0
X		X

The grid is created with this code:

```
char[][] grid — new char[3][3];
grid[l][1] = 'X';
grid[O][0] = T0';
grid[2][0] = 'X';
grid[O] [1] = 'O';
grid[2][2] = 'X';
grid[l][2] = 'O'; //line nl
```

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';

Answer: D

Question: 136

Given:

```
public class Test {
      public static void main(String[] args} {
                int x = 1;
                int y = 0;
                if(x++ > ++y) {
            System.out.print("Hello ") ;
        } else {
            System.out.print("Welcome "};
        }
        System.out.print("Leg " + 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

Answer: C

Question: 137

Given the code snippet from a compiled Java source file:

```
public class MyFile

      public static void main (String[] args)

            String argl = args[l];
            String arg2 = args[2];
```

```
String arg3 = args[3];
System.out.printin(™Arg is " + arg3)
```

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

Answer: A

Question: 138

Given the code fragment:

```
4. class Z -|
5. public void princFilaContenr () {
6.         /* code goes hart */
7.         thlioW new IdE^pfcption U ;

10. public class Test {
11. public static void DLiint^tringf] aigsi
12.          X Kobj = new X(h
13.          xcbj.printFileContent(F ;
H. J
15. |
```

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

A Replace line 13 with:

```
try {
      xobj.printFileCoatent()
catch(Exception e) { } catch(lOException e) { (
```

B Replace line 7 with throw lOException ("Exception raised");

c Replace line 11 with public static void main(StringO) args) throws Exception {

o At line 14, insert throw new IOException();

E Replace line 5 with public void printFileContent() throws lOException {

A. Option A B. Option B C. Option C D. Option D E. Option E

Answer: C,E

Question: 140

Given:

```
MainTest.j ava:

public class MainTest {

    public static void main(String[] args) {
                System.out.printin("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

Answer: A

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 ".java" extension.
E. It can run on any platform that has the Java Runtime Environment.

Answer: A,E

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.

Answer:B

Question:143

Given the code fragment:

```
int n[][] = {{1, 3}, {2, 4}};
for (int i = n.length - 1; i >= 0; i--) {
    for (int j = n[i].length - 1; j >= 0; j--) {
        System.out.print(n[i][j]);
    }
}
```

What is the result?

A. 3142
B. 2413
C. 1324
D. 4231

Answer: D

Question: 144

Given:

```
public class Test { int x, y;

    public Test(int x, int y) { initialize(x,
        y) ;
    }

    public void initialize(int xr int y) {
        this.x = x * x;
        this »y = y * y; }
```

```
public static void main(String[] args) {
    int x = 9, y — S;
    Test obj = new Test(x, y);
    System.out.printin(x + " * + y); }
```

What is the result?

A. 9 5
B. 81 25
C. Compilation fails.
D. 0 0

Answer: A

Question: 145

Given this segment of code:

```
ArrayList<Cycle> myList = new ArrayListO (} ;
myLisu . add (new MotorCycleO ) ;
```

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.

Answer: B,C

Question: 146

Given the code fragments:

```
interface Exportable { void export();

class Tool implements Exportable {
    public void export() {                    // line nl
        System.out.printin("Tool::export");
    }

class ReportTool extends Tool {

    void exportO {                            // line n2
        System.out.printin("RTool::export");

    public static void main(String[j 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 n1.
B. Compilation fails only at line n2.
C. Tool::exportTool::export
D. Compilation fails at both line n1 and line2.
E. RTool::exportTool::export

Answer: A

Question: 147

Given:

```
class Vehicle { int x;
    Vehicle (){
        this(10);   // line nl
    } Vehicle(int x) J
        this^x - x;


class Car extends Vehicle { int y;
    Car() {
        super(10);    // line n2
                        Car (int yj (
                    super(y);
                    this, y = y;

                        public String toString()
                    {
                    return super.x + ":" + this.y

                     }
```

And given the code fragment:

```
Vehicle y = new Car(20);
  System.out.printIn(y);
```

What is the result?

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

Answer: A

Question: 148

Given the code fragment:

```
public static void ma in (St ring{] args) {
    LocalDate date = LocalLate.of(2012, Lr 30)
    date,plusDays (10);
    System.out.printIn(date) ;
```

What is the result?

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

Answer: B

```
Malnjavo § 0 saved .
1  import java.time.LocalDate;
2  import java.time.Month;
3
4   public class Main {
5     public static void main(String[] args) {
6       LocalDate date = LocalDate.of(2012,  1, 30);
7       date.plusDays(10);
8       System.out.println(date);
9     }
10  }
```

```
java version "1.8.0.31"
Java(TM) SE Runtime Environment (build 1.8.0_31-bl3)
Java HotSpotOM) 64-Bit Server VM (build 25.31-b07, mixed mode)
> javac -classpath .;/run_dir/junit-4,12,jar:/run_dir/hamcrest- ore-
1.3.jar:/run.dir/json-simple-l.l.l.jar -d . Main.java
> java -classpath .:/run_dir/junit-4,12.jar:/run_dir/hancrest-c re-
1.3.jar:/run_dir/json-simple-l.1.1.jar Main 2012-01-30
I
```

Question: 149

Given:

```
public class Test {
    public static void main(String[] args} { int x -
        1;
        int y = 1;
        if (x++ < ++y){
            System.out .printj "Hello "J;
        ) else (
```

```
System.out.print("Welcome ") ;

System.out .print ("Log ° + x + ":'* + y)
```

What is the result?

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

Answer: A

```
1  public class Main {
2    public static void main(String[] args) {
3      int x = 1;
4      int y = 1;
5      if (x++ < ++y) {
6        System.out.print("Hello ");
7      } else {
8        System.out.print("Welcome ");
9      }
10     System.out.print("Log " +x+ ":" + y);
11   }
12 }
```

```
Java(TM) SE Runtime Environment (build 1.8.0_31-b13)
Java HotSpot(TM) 64-Bit Server VM (build 25.31-b07, mixed mode)
> javac -classpath .:/run_dir/junit-4.12.jar:/run_dir/hamcrest-core-1.3.jar:/run_dir/json-simple-1.1.1.jar -d . Main.java
> java -classpath .:/run_dir/junit-4.12.jar:/run_dir/hamcrest-core-1.3.jar:/run_dir/json-simple-1.1.1.jar Main
Hello Log 2:2
```

Question: 150

Given the code snippet from a compiled Java source file:

```
public static void main (String[J args)

    String arg2 = args[1 J;
    String arg3 - args[2];
                is "
```

and this output:

```
Arg is 2
```

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

Answer: C

Question: 151

Given the code fragment:

```
public static void main(String[] args) { String I] 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.printlr. ("Work done" j ;
            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

Answer:B

Question: 152

Given the code fragment:

```
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.cut.printin(wd);
```

What is the result?

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

Answer: D

Question: 153

Given the code fragment:

```
Stringd arr = {"Hi", "How", "Are", "You"};
List<String> arrList = new ArrayListO (Arrays. asList (arr) ) ;
if(arrList.removelf(s -> { System.out.print(s); return s.length()<=2;} )){
System.out.printin(" 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.

Answer: B

Main,java § 0 saved »

```
1   public class Main {
2   public static void nain(String (j args) {
3   int nil!) = {{1, 3}, (2, 4}};
4   for (int i = n,length - 1; i >= 0; i–) {
5           for (int j = n[i].length - 1; j >= 0; j--) {
6             System.out.print(n[i] [j]);
7           } '
8         }
9        }
18   }
```

```
java version "1.8.0.31"
Jova(IM) SE Runtime Environment (build 1.8.0_31-bl3) Java
HotSpotOM) 64-Bit Server VM (build 25.31-b07, > javac -
classpath .:/run_dir/junit-4.12.jar:/run_di ore-
1.3.jar:/run_dir/json-simple-l.1.1.jar -d . Main > java -classpath
.:/run_dir/junit-4.12.jar:/run_dir re-1.3.jar:/run.dir/json-simple-
l.1.1.jar Main 4231| '
```

Question: 154

Given the code fragment:

```
String[] strs = {"A”, "B"};
int ids = 0;
for (String s : strs) {
        strs [ids] .concat (" element 11 -I- ids} ; ids++;
}
for (ids = 0; ids < strs.length; ids++} {
        System.out.printin(strs[ids]) ;
}
```

What is the result?

A. AB
B. A element 0B element 1
C. A NullPointerException is thrown at runtime.
D. A 0B 1

Answer: C

Question: 155

Given:

```
class C {
    public C(){
        System.out.print("C ")
```

```
class B extends C{
    public B () {                    //line nl
        System.out.print("B ")

public class A extends B{

    public A () {                    //line n2
        System.out.print(nA ”);

    public static void main(String[] args)
        { A a = new A();
```

What is the result?

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

Answer: A

Question: 156

Given this code for the classes MyException and Test:

```
public class MyException extends RuntimeException {}

public class Test {
    public static void main(String[] args) { try {
            methodi(); }
        catch (MyException ne) { System.out.print("A");
        }

    public static void methodi() { // line nl try {
            throw 3 > 10 ? new MyException() : new lOException() }
         catch(lOException ie) {
             System.out.printin(”1");

        catch (Exception re) {
            System.out.print("B"); }
```

What is the result?

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

Answer: C

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.

Answer: B,D,E

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?

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.

Answer: A,C

Question: 160

Given these classes:

```
public class Employee { public int salary;
}

public class Manager extends Employee { public int budget;
```

```
}
public class Director extends Manager { public int
    stockGptions;
}
```

And given this main method:

```
public static void mam (Strung I ] args) { Employee
    employee = new Employee(); Employee manager = new
    Manager(H Employee director = new Director(j; //line
    nl
}
```

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;

Answer: B,F

Question: 161

Given:

```
public class App { int count;
    public static void displayMsgO {
        System.out.printIn("Welcome Visit Count: " + count++);        // line nl
    I public static void main(String[] args) {
        App.displayMsg();
        displayMsgO;                                                  // line n2
    } }
```

What is the result?

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

Answer: C

```
2 public class App {
■ int count;
    public static void displayMsg() {
0
5 System.out.printin("Welcome Visit Count: " + count ++); //line nl
* }
    public static void main(String[] args) {
      App.displayMs g();
      displayMsg();
10  }
11 }
12
```

Question: 162

Given:

```
interface I { public void displaylf);
}
abstract class C2 implements I { public
    void displayed () {
        System. out. print (11C211) ;

class Cl extends C2 { public void
    displaylf) (
                System.out.print("CIO;
                J
```

And the code fragment:

```
C2 obj 1 = new CIO;
I obj2 = new Cl 0 ;

C2 s = (C2) obj2;
```

```
I t = objl;
t.displayl () ;
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.

Answer: B

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

Answer: D

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.

Answer: B,C

Question: 167

```
public class Test {
    public static void main(String[] args) {
            String[][] chs = new St ring [5] [2];
        chs[0] = new String[2];
        chs[l] = 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++;
            I
```

```
for (String[] ca : chs) { for (String c :
                                    ca) {
                System.out.print(c + ” ");
            }
            System.out.printIn();

        }
}
```

Given:

What is the result?

A. 97 9899 100 null null null
B. 97 9899 100 101 102 103
C. Compilation fails.
D. A NullPointerException is thrown at runtime.
E. An ArrayIndexOutOfBoundsException is thrown at runtime.

Answer: E

Question: 168

Given the code fragment:

```
public class App :
        public static void main (St ring[] args) {
          String strl = "Java";
          String str2 = new String("java");
          //line nl

              System.out.printIn("Egual") ;
          } else {
             System.out.printin("Not Equal");
```

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

J A) St r 1.toLowerCase();
if (strl == str2)

C B) if (str2.equals(strl.toLowerCase()))

r C) Str 1.toLowerCase();
if (str1.equals(str2))

r D) if (strl. toLowerCase () == str2. toLowerCase ())

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

Answer: B

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;
            J
        } continue;
    }
}
```

What is the result?

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

Answer: D

Question: 170

Given the code fragment:

```
LocalDateTime dt = LocalDateTime.of(2014, 7, 31, 1, 1);
dt.plusDays(30);
dt.plusMonths(1) ;
System.out.printin(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

Answer: B

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.printin(name + " : " + age + " : " + salary)
```

Test.java:

```
class Test { public static void main(String[] args) { Employee
el = new Employee();
          Employee e2 = new Employee("Jack", 50); Employee
          el = new Employee("Chloe", 40, 5000)

          el.printDetails();
```

```
        e2.printDetails();
        e3.printDetails() ; }
```

Which is the result?

A Compilation fails in the Employee class.

B `null : 0: 0 Jack : 50 : 0 Chloe : 40 : 5000`

```
null : 0 : 0
Jack : 50 : 2000
Chloe : 40 : 5000
```

o Compilation fails in the Test class.

E Both the Employee class and the Test class fail to compile

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: D

Question: 173

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;

Answer: C

Question: 174

Given:

```
Class A {
    public void test() {
        System.out.printin("A ")

class B extends A { public void test() {
        System.out.printin("E ”)

public class C extends A { public void test() {
        System. out. printin (T,C "} ;
```

```
public static void main(String'] args) { Abi = new A
    () ;
    A b2 = new C(j;
    A b3 = (B) b2;                    /'/line nl
    bl = (A) b2;                      //line n2
    bl.test();
    b3.test ();
```

What is the result?

A. AB
B. AC
C. CC
D. A ClassCastException is thrown only at line n1.
E. A ClassCastException is thrown only at line n2.

Answer: D

Question: 176

Given the code fragment:

```
public static void main(String[] args) { int ans;
    try {
        int num = 10;
        int div = 0;
        ans = num / div;
    } catch (ArithmeticException ae) {
        ans =0;                                  // line nl
    } catch (Exception e) {
        System.out.printin("Invalid calculation");
    }
    System.out.printin("Answer = ” + ans); // line n2 }
```

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.

Answer: C

```
public class Test {
    public static void main{String[] args} { int ans;
      try {
        int num ■ 10;
        int div ■ 0;
        ans * num / div;
      } eater. {Arithroe ticException ae) {
        ans " 0;
      } eater. (Exception c) {
__ 12 _____ .qvflt^m-nut _nr i ntl nJ " Tnva I i ri na1rn ■ at i nn" } *
| ^variable ans might not have been initialized
Q       System.out.printin{"Answer " ^ ans}; //line D2
15    }'
16  }
1 7
```

Question: 177

Given:

Base.java:

```
class Base {
    public void test(){
        System.out.printin("Ease "); }
```

DerivedA.java:

```
class DerivedA extends Base {
    public void test (J{
        System.out.printin("DerivedA "i; }
```

DerivedB.java:

```
class DerivedB extends DerivedA. {
    public void test (J {
        System.out.printin("DerivedB "); } public static
    void main(String[J args) {
        Base bl = new DerivedB();
        Base b2 = new DerivedA();
        Base b3 — new DerivedB (i;
        Base b4 = b3;
        bl = (Base) b2;
        bl .test () ;
        b4.test (); }
```

What is the result?

A. BaseDerivedA
B. BaseDerivedB
C. DerivedBDerivedB
D. DerivedBDerivedA
E. A ClassCastException is thrown at runtime.

Answer: D

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.printIn(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

Answer: C

Question: 180

Given the code fragment:

```
public static void main(String[] args) { LocalDate date =
    LocalDate.of(2012, 1, 30) date.plusDays(10) ;
    System.out.printin(date);
```

What is the result?

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

Answer: C

Question: 181

Given the code fragment:

```
public static void main(String[] args) {
        Short si = 200;
        Integer s2 = 400;
        String s3 = (String) (si + s2); //line nl
        Long s4 = (long) si + s2;                    //line n2
        System.out.printIn("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.

Answer: E

Question: 182

Given the code fragment:

```
10.  public static void main(String[] args {
11.  List<String> 1st = Arrays.asList("A", "B", "C", "D") ;
12.  Iterator<String> itr = 1st.iterator();
13.  while(itr.hasNext()) {
14.            String e = itr.next();
15.            if (e == "C") {
```

```
16.                 break;
17.             }
18.             else   {
19.                 continue;
20.                 System.out.print(e);
21.             }
22.         }
23.   }
```

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.

Answer: B

Question: 183

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

```
public class Bird. {
      public void fly () { System.out.print ("Fly.");

}
```

```
 public class Peacock extends Bird { public void
       dance() {
             System.out.print("Dance.");
```

and the code fragment:

```
/*insert code snippet here */
P-fiyO ;
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;

Answer: B

Question: 184

Given the code fragment:

```
public class Test {
    public static void main(String[] args) { int x;
        /* insert code here */
    }
}
```

Which two code fragments inserted at line 10 print ****

A

```
x = 3;
do {
    System.out.print("*"); x–;
} while (x >= 0);
```

B

```
x = 0;
do {
    System.out.print("*"); x++;
} while (x >= 3);
```

c

```
x = 0;
do {
```

```
        System.out.print("*"); ++x;
    }while (x > 3) ;
```

D

```
    x = 3;
    do {
        System.out.print("*");
        x—;
    }while (x != 1);

    x = 0;
    do {
        System.out.print("*");
    } while (x++ < 3);
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: E

Question: 185

Given the code fragment:

```
int x = 10;
int y = ++x;
int z = 0;
if (y >= 10 | y <= ++x) {
    z = x;
} else {
    z = x++
System.out.printin(z);
```

What is the result?

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

Answer: C

Result

CPU Time: 0.14 sec(s), Memory: 32028 kilobyte(s)

```
12
```

Question: 186

Given the code fragment:

```
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

Answer: D

Result

CPU Time: 0.32 sec(s), Memory: 35824 kilobyte^}

Question: 187

Given:

```
class LogFileException extends Exception {}
class AccessViolationException extends RuntimeException {}

1.  public class App {
2.  public static void main (String[] args) throws LogFileException {
3.          App obj = new App ();
4.          try {
5.                  obj.open();
6.                      obj.process() ;
7.                  //insert code here
8.          }
9.          catch (Exception e) {
10.                 System.out,println("Completed.");
11.         }
12.   }
13.  public void process () {
14.         System.out.printin("Processed") ;
15.         throw new LogFileException();
16.   }
17.  public void open () {
18.         System.out.printin ("Opened.");
19.         throw new AccessViolationException();
20.   }
21.  }
```

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 ();

Answer: D

Question: 188

Given the code fragment:

```
int arrayl[] = {1, 2, 3};
int array2[] = new int [5];
array2 = arrayl;
for (int i : array2) {
      System.out.print(i + " ") ;
}
System.out.printin() ;
int array3[] = new int[3];
array3 = array2;
for (int i : array3] {
      System, out .print (i -I- " ") ;
}
```

What is the result?

A. 1 2 3 0 01 2 3 0 0
B. An Exception is thrown at run time.
C. 1 2 3 0 01 2 3
D. 1 2 31 2 3

Answer:

Question: 191

Given:

```
class Alpha { int ns; static int s; Alpha (int ns) { if (s <ns) { s = ns; this.ns = ns;
                    }

    1 void doPrint () { System.out.printin("ns= " + ns + " s = " + s) }
```

And:

```
public class TestA {
        public static static void main(String[] args) { Alpha refl = new Alpha (100);
                Alpha ref2 = new Alpha (50);
                Alpha ref3 = new Alpha (125); refl.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

Answer: C

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};

Answer: BE

Reference: https://stackoverflow.com/

Question: 193

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};

Answer: BE

Reference: https://stackoverflow.com/

Question: 194

Given the class definitions:

```
class C1 {}
class C2 extends C1 {}
class C3 extends C2 {}
```

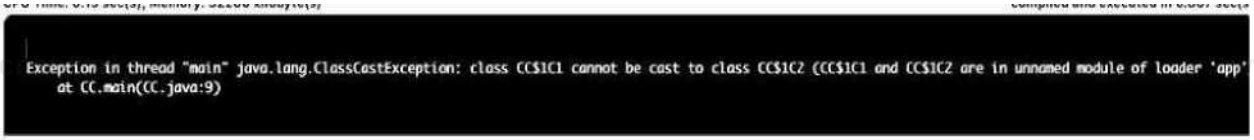
and the code fragment:

```
16. C1 obj1 = (C1) new C2();
17. C2 obj2 = (C2) new C3();
18. C2 obj3 = (C2) new C1();
19. C3 obj4 = (C3) obj2;
```

Which line throws ClassCastException?

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

Answer: D



Question: 195

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

Answer: CD

Reference: https://www.geeksforgeeks.org/encapsulation-in-java/

Question: 196

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.print("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

Answer: B

```
/Main.java:Z9: error: cannot find symbol

      System.out.print("The sun of " + xVal + "numbers is:"+ sui);
                                          ^
    symbol: variable xVal location: class Main
1   error
```

Question: 197

Given the code fragment:

```
List<String> arrayList = new ArrayListo () ;
arrayList.add("Tech");
arrayList.add("Expert");
arrayList.set(0, "Java");
arrayList.forEach (a -> a.concat("Forum"));
arrayList.replaceAll (s -> s.concat("Group"));
System.out.printin(arrayList);
```

What is the result?

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

Answer: B

```
21' public class Main {
22' public static void main(String0 args) {
23          List<String> arrayList = new ArrayListo ();
24          arrayList.add("Tech");
25          arrayList.add("Expert");
26          arrayList.set(0, "Java");
27          arrayList.forEach (a -> a.concat ("Forum"));
28          arrayList.replaceAll (s > s.concat("Group"));
29          System.out.println(arrayList);
30          }
31
32
33
34
35 }
```

CPU Time: 0.18 sec(s), Memory: 32824 kilobyte(s)

Question: 198

Given the code fragment:

```
public class Game {
        public static void menu() {
                system.out.printin("1. Left 2. Right 0. Stop"); 1 public
        static void main(String[] args) {
                int option;
                /* insert code here */ }
```

and the requirements of the application:
It must display the menu.
It must print the option selected.
It must continue its execution till it reads '0'.

Which code fragment can be used to meet the requirements?

A- `for (option = 0; option != 0; option = //code that reads the option goes here) {`
`/* code that print the option go here */ }`

B
```
while (option != 0) {
        menu ();
        option = // code that reads the option goes here /* code that print the option go here */
```

C
```
do {
        menu();
        option = // code that reads the option goes here /* code that print the option go here */
} while (option != 0);
```

D
```
while (option >= 0) {
        menu () ;
        option = // code that reads the option goes here /* code that print the option go here */
```

A. Option A B. Option B C. Option C D. OptionD

Answer: A

Question: 199

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

A. Boolean available = “TRUE”:
B. String tmpAuthor = author, author =”Mc Donald”;
C. Double price = 200D;
D. Integer pages = 20;

Answer: CD

Reference: http://www.functionx.com/java/Lesson06.htm

Question: 200

Examine the given definitions:

```
class Player {}

interface Playable {
        public void play();
        public void setPlayers(List<Player> players);
1

class Game implements Playable {
        private List<Player> players;
        public List<Player> getPlayersO { return players; }
        public void setPlayers(List<Player> players) { this.players = players; }
        public void play() { System.out.printin("Played."); }
1
```

and the code fragment:

```
Playable p = new Game();
List<Player> players = new ArrayListO () ;
p.setPlayers (players);
p.play();
```

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.

Answer: C

Question: 201

Given:

```
class Product { int id; String name; Product (int id. String name) { this.id
= id;
            this.name = name;
      }
}
public class Shop {
      public static void main(String[] args) { List<Product> 1st = new
            ArrayListo (); 1st.add(new Product(10, "Icecream"));
            1st.add(new Product(11, "Chocolate")); Product pl = new
            Product(10, "Icecream"); System.out.printin(1st.indexOf(pl));
      }
```

What is the result?

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

Answer: C

Question: 202

Given the code fragment:

```
public 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.printin(action + ":" + qty + " items. Stock in Hand: " + stock);
      }
```

```
public static void main(String[] args) {
        StockRoom kl = new StockRoom ();
        kl.sell(5) ;
        kl.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.

Answer: C

Question: 203

Given:

```
class Si {
      protected void display(int x) { System.out.print("Parent" + x) ;
      }
}
class S2 extends Si {
      public void display(int x, int y) { this.display(x);
            display(y);
            super.display(y);
}
      public void display(int x) { System.out.printin("Child " + x);
      }
```

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.

Answer: D

```
Error: Main method not found in class 51, please define the main method as: public static void
    nminCStringn args)
```

Question: 204

Given the code fragment:

```
List<String> 1st = Arrays.asList("EN", "FR", "CH", "JP") Iterator<String>
itr = 1st.iterator();
while(itr.hasNext()) {
       String e = itr.nextO;
                              if (e == "CH") {
                                   break;
       }
System.out.print(e + " ");
}
```

What is the result?

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

Answer: B

Question: 205

Given:

```
class Vehicle {
        Vehicle () {
              System.out.printin("Vehicle");

class Bus extends Vehicle { Bus() {
              System.out.printin("Bus");

public class Transport {
        public static void main (String[] args) { Vehicle v = new Bus();
  ]
```

What is the result?

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

Answer: A

```
16' class Vehicle {
17' VehicleC) {
18              System, out. println("Vehicle");
19
Z0 }
21 }
ZZ' class Bus extends Vehicle {
Z3'         Bust) {
Z4              System.out.println("Bus");
25          }
26 }
Z7' public class Transport {
Z8'         public static void main (StringQ args) {
Z9              Vehicle v = new BusQ;
30          }
31 }
```

Result

CPU Time: 0.14 sec(s), Memory: 32160 kilobyte(s)

```
Vehicle
Bus
```

Question: 206

Given:

```
class Pl {}
class P2 extends Pl implements II {} interface II {}
```

and the code fragment:

```
Pl obj = new Pl ();
P2 obj 2 = new P2 () ;
11 obj 3 = new P2 () ;
boolean rl = obj instanceof P2;
boolean r2 = obj2 instanceof Pl;
boolean r3 = obj3 instanceof II;
System.out.printin(rl + ":" + r2 + ":"+r3);
```

What is the result?

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

Answer: B

Question: 207

Given:

```
public class App {
       String greet = "Welcome!";
       public App() {
             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.printin(t.greet);
       }
```

What is the result?

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

Answer: C

Question: 208

Given:

```
public class OraString {
       String s;
       public boolean equals(OraString str) {
             return this.s.equalsIgnoreCase(str.toString()) }
       OraString(String s) {
```

```
            this.s = s;
        )
    }
```

and the code fragment:

```
String si = "Moon";
OraString s2 = new OraString("Moon");

if ((si == "Moon") && (s2.equals("Moon"))) {
        System.out.print("A");
} else {
        System.out.print("B");
}
if (si.equalsIgnoreCase(s2.s)) {
        System.out.print("C") ;
} else {
        System.out.print("D");
}
```

What is the result?

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

Answer: C

```
16’  public class OraString {
17          String s;
18’  public boolean equals(OraString str) { return this.s.equals!gnoreCase(str.toStringO);
19
Z0          }
Z1   OraString(String s) { this.s = s;
ZZ’         }
Z3
Z4          public static void main(StringQ args) {
Z5                  String si = "Moon";
Z6 ’                OraString sZ = new OraStringC’Moon");
Z7
Z8    if ((si = "Moon") 8& (sZ.equals("Moon"))) { System.out.println("A");
Z9                  } else {
30’         System.out.println("B");
31                  }
3Z’   if (sl.equalsIgnoreCase(sZ.s)) { System.out.println("C );
33                  } else {
34          System.out.println("D");
35’                 }
36          }
37’
38
39
40
41
```

Result

```
B
C    CPU Time: 0.16 sec(s), Memory: 32160
     kilobyte(s)
```

Question: 209

Given:

```
public class App { int foo;
      static int bar;

      static void process() { foo += 10;
            bar += 10;
      }
      public static void main(String[] args) { App firstObj = new
            App{);
            App.process();
            System.out.printin(firstObj.bar);

            App secondObj = new App();
            App.process();
            System.out.printin(secondObj.bar);
```

What is the result?

A. 10
20

B. A compile time error occurs

C. 20
20

D. 10
10

Answer: B

Question: 211

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

Answer: A

Reference: https://www.quora.com/How-does-a-main-method-get-invoked-automatically-explain-it-in-brief

Question: 212

Given the code fragment:

```
String str = "Sweet Sweat";
String str2 = str.trim().charAt(6) + "" +str.indexOf("Sw",1)
System.out.printin(str2);
```

What is the result?

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

Answer: C

Question: 213

Given the code fragment:

```
8. public static void main(String[] args) {
9. int x;
10.   /* insert code here */
11. }
```

Which code fragment at line 10 prints Welcome 100?

A
```
for (x = 0; x < 100; ++x) {
      System.out.printin("Welcome " + x);
```

B
```
for (x = 100; x <= 100; x++) {
        System.out.printin("Welcome " + x) ;
    }
```

C.
```
x = 100;
    while (x <= 100) {
          x++;
          System.out.printin("Welcome " + x); }
```

0
```
x = 100; do {
         ++x;
         System.out.printin("Welcome " + x) ;
    } while (x < 100);
```

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

Answer: B

Question: 214

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.

Answer: B

Question: 215

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.printin(c.p +     + c.totalAmount)
```

What is the result?

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

Answer: D

Question: 216

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.printin(objBook.pages + ":" + obj.count)
        obj.method(objBook, obj.count);
        System.out.printin(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

Answer: A

```
lb
16 class Book {int pages;}
17' public class App{
18          int count;
19
20'         public void methodfBook x, int k) {
Z1                  x.pages = 100;
Z2                  k = 208;
23          }
24
25'         public static void main(String[] args) {
26                  App obj = new App();
27                  Book objBook = new Book();
28                  System.out.printlnCob]Book.pages + ":" + obj.count);
29                  obj.method(objBook, obj.count);
30                  System.out.println(objBook.pages + ":" + obj.count);
31          }
32    }
```

Result

CPU Time: 0.24 seels), Memory: 35920 kilobyte(s)

```
0:0 100:0
```

Question: 217

Given:

```
public class Test { // line nl
}
```

Which two code fragments can be inserted at line n1?

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

Answer: AD

Question: 218

Examine the content of App.java:

```
package pl;
public class App {
      public static void main(String[] args) {
            System.out.printin("Java");
}
```

and ofTest.j ava:

```
package pl.p2;
public class Test {}
```

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.

Answer: C

Question: 219

Given the code fragment:

```
7.  public static void main(String[] args} {
8.  Predicate<Integer> p = (n) -> n % 2 == 0;
9.  // insert code here
10.  }
```

Which code snippet at line 9 prints true?

```
A. Boolean 5 = p.apply(101);
   System.out.pxintln(s);
B Boolean s = p.test(100);
   System.out.printin(s) ;
c Integer s = p.test (100);
   if (s == 1) {
         System.out.printin("false") } else {
         System.out.printIn("true");

D System.out.pxintln(p.apply(100));
```

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

Answer: B

Question: 220

Given:

```
public class SumTest {
     public static void doSum(Integer x, integer y) {
         system.out.printin("Integer sum is ” - (x + y))

     public static void dosum(double x, double y) {
         system.out.printin("double sum is " + (x + y));
     }
```

```
public static void doSum(float x, float y) { system.out.printin("float
    sum is " + (x + y));

public static void main(string[] args) { doSumdO, 20);
    dosum(10.0, 20.0);
```

What is the result?

A. double sum is 30.0 float sum is 30.0
B. float sum is 30.0 double sum is 30.0
C. Integer sum is 30 double sum is 30.0
D. Integer sum is 30 float sum is 30.0

Answer: B

Question: 221

Given:

```
public class Fieldlnit { Character c;
    boolean b; float f; void printAll() {
        System.out.printin("c = " + c);
        system.out.printin("b = " + b); system.out.printin("f = " + f);
    }

    public static void main(string[] args) ( Fieldlnit f = new Fieldlnit();
        f. printAll () ;
```

What is the result?

A. c=null b=true f=0.0
B. c= b=false f=0.0
C. c=null b=false f=0.0
D. c=0 b=false f=0.0F

Answer: C

Question: 222

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;

Answer: BD

Question: 223

Given the code fragment:

```
abstract class Robot implements speakable { public void process ();

class Humanoid extends Robot {
    public void speak(String s) { system.out.printin(s); }
    public void process() { System.out.printin("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 {

Answer: C

Question: 224

Given:

```
public class App {

    String myStr = "9009";

    public void doStuff(String str) { int myNum = 0;
        try {
            String myStr = str;
            myNum = Integer.parselnt(myStr);
           } catch (NumberFormatException ne) {
              System.err.printin("Error") ;
        I
        System.out.printin(
             "myStr: " + myStr + ", myNum: " + myNum); }

    public static void main (String[] args) { App obj = new
        App();
        obj.doStuff ("700 7");
    }
```

What is the result?

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

Result

CPU Time: 0.30 sec(s), Memory: 35792 kilobyte(s)

```
nyStr: 9009, my Nun: 7007
```

Answer: C

Question: 225

Given the code from the App.java file:

```
lc class App {
public static void main(String[] args) {
    System.out.print(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

Answer: C