Question **1**

Not yet answered

Marked out of 1.00

Java array is a collection of _____.

- ☐ a.   different type of element
- ☐ b.   heterogeneous data
- ☑ c.   the same data
- ☑ d.   similar type of elements

Question **2**

Not yet answered

Marked out of 1.00

We can calculate the length of an array using _____.

- ○ a.   sizeof(array)
- ○ b.   array.len
- ⦿ c.   array.length
- ○ d.   array.sizeof()

Clear my choice

Question **3**

Not yet answered

Marked out of 1.00

What is returned from arr[3] if arr={6, 3, 1, 2}?

- ⦿ a.   2
- ○ b.   1
- ○ c.   3
- ○ d.   6

Clear my choice

Question **4**

Not yet answered

Marked out of 1.00

Which implementation of Iterator can traverse a collection back and forth?

- ○ a.   Iterator
- ○ b.   SetIterator
- ○ c.   MapIterator
- ⦿ d.   ListIterator

Clear my choice

Question **5**

Not yet answered

Marked out of 1.00

Collection _____

- ○ a.   implements the Serializable interface
- ○ b.   inherits the Collections class
- ⦿ c.   inherits the Iterable interface
- ○ d.   implements the Traversable interface

Clear my choice

Question 6

Not yet answered

Marked out of 1.00

List, Set and Queue _____ Collection.

- ⦿ a. inherit
- ○ b. externds
- ○ c. <u>inheritance</u>
- ○ d. implement

Clear my choice

Question 7

Not yet answered

Marked out of 1.00

Which of the following is an outdated class but still in use?

- ☐ a. Arraylist
- ☑ b. Vector
- ☑ c. Hashtable
- ☐ d. HashMap.

Question 8

Not yet answered

Marked out of 1.00

Which class stores elements in ascending order?

- ○ a. HashMap
- ○ b. HashSet
- ⦿ c. TreeSet
- ○ d. ArrayList

Clear my choice

Question 9

Not yet answered

Marked out of 1.00

What number is in matrix[2][2]?

```
1   int[][] matrix = {{1, 2, 3, 4},
2                      {5, 6, 7, 8},
3                      {9, 10, 11, 12},
4                      {13, 14, 15, 16}
5                     };
```

- ○ a. 6
- ⦿ b. 11
- ○ c. 10
- ○ d. 7

Clear my choice

Question 10

Not yet answered

Marked out of 1.00

Consider the following field arr and method checkArray. Which of the following best describes what checkArray returns?

```
1   private int[] arr ={1, 3, 5, 7, 11, 9, 13};
2   // precondition: arr.length != 0
3   public int checkArray()
4   {
5       int loc = arr.length / 2;
6       for (int k = 0; k < arr.length; k++)
7       {
8           if (arr[k] > arr[loc])
9           {
10              loc = k;
11          }
12      }
13      return loc;
14  }
```

- ○ a. 13
- ◉ b. 7
- ○ c. 4
- ○ d. 3

Clear my choice

Question 11

Not yet answered

Marked out of 1.00

What is the output of the following code fragment?

```
1   public class Main {
2
3       public static void main(String args[]) {
4
5           int[] items = {2, 7, 3, 5, 8, 9};
6           int funny = items[0];
7           for (int i = 0; i < items.length; i++) {
8               if (items[i] > funny) {
9                   funny = items[i];
10              }
11          }
12          System.out.print(funny);
13      }
14  }
```

- ○ a. 41
- ◉ b. 9
- ○ c. 2
- ○ d. 2 7 3 5 8 9

Clear my choice

Question 12

Not yet answered

Marked out of 1.00

Consider the following field arr and method checkArray. Which of the following best describes what checkArray returns?

```java
1   private int[] arr ={1, 3, 5, 7, 11, 9, 13};
2   // precondition: arr.length != 0
3   public int checkArray()
4   {
5       int loc = arr.length / 2;
6       for (int k = 0; k < arr.length; k++)
7       {
8           if (arr[k] > arr[loc])
9           {
10              loc = k;
11          }
12      }
13      return loc;
14  }
```

- a. Returns the index of the largest value in array arr
- b. Returns the index of the first element in array arr whose value is greater than arr[loc].
- c. Returns the largest value in array arr.
- d. Returns the index of the last element in array arr whose value is greater than arr[loc].

Clear my choice

Question 13

Not yet answered

Marked out of 1.00

What are the values in a after mult(3) executes?

```java
1   private int[ ] a = {1, 3, -5, -2};
2   public void mult(int amt)
3   {
4       int i = 0;
5       while (i < a.length)
6       {
7           a[i] = a[i++] * amt;
8       } // end while
9   } // end method
```

- a. {1, 3, -5, -2}
- b. The code will never stop executing due to an infinite loop
- c. {2, 6, -10, -4}
- d. {3, 9, -15, -6}

Clear my choice

Question 14

Not yet answered

Marked out of 1.00

Which of the following statements is a valid conclusion. Assume that variable b is an array of k integers and that the following is true: b[0] != b[i] for all i from 1 to k-1

- a. Array b is sorted
- b. Array b contains no duplicates
- c. Array b is not sorted
- d. The value in b[0] does not occur anywhere else in the array

Clear my choice

Question 15

Not yet
answered

Marked out of
1.00

What are the values in a after mult(2) executes?

```
1    private int[ ] a = {1, 3, -5, -2};
2    public void mult(int amt)
3    {
4        int i = 0;
5        while (i < a.length)
6        {
7            a[i] = a[i] * amt;
8        } // end while
9    } // end method
```

○ a. {3, 9, -15, -6}

○ b. {2, 6, -10, -4}

○ c. {1, 3, -5, -2}

◉ d. The code will never stop executing due to an infinite loop

Clear my choice

Question 16

Not yet
answered

Marked out of
1.00

What is the output of the following code?

```
1    import java.util.Collections;
2    import java.util.Iterator;
3    import java.util.LinkedList;
4
5    public class Main {
6
7        public static void main(String args[]) {
8            LinkedList<Integer> lang = new LinkedList<Integer>();
9            lang.add(8);
10           lang.add(2);
11           lang.add(1);
12           lang.add(6);
13           Iterator it = lang.iterator();
14           Collections.reverse(lang);
15           while (it.hasNext()) {
16               System.out.print(it.next() + " ");
17           }
18       }
19   }
```

◉ a. 6 1 2 8

○ b. 8 2 1 6

○ c. 1 2 6 8

○ d. 8 6 2 1

Clear my choice

Question 17

Not yet
answered

Marked out of
1.00

What is printed as a result of executing the following code segment?

```
1    import java.util.List;
2    import java.util.ArrayList;
3
4    public class Main {
5
6        public static void main(String args[]) {
7            List<Integer> aList = new ArrayList<>();
8            aList.add(1);
9            aList.add(2);
10           aList.add(1, 5);
11           aList.set(1, 4);
12           aList.add(6);
13           aList.add(3);
14           System.out.println(aList);
15       }
16   }
17
```

- a. [1, 2, 3, 4, 5, 6]
- ● b. [1, 4, 2, 6, 3]
- c. Compiler error
- d. [1, 2, 5, 4, 6, 3]

Clear my choice

Question 18

Not yet
answered

Marked out of
1.00

Which of the following best describes the behavior of process1 and process2 (shown below)?

```
1    public static List<Integer> process1(int n)
2    {
3        List<Integer> someList = new ArrayList<Integer>();
4        for (int k = 0; k < n; k++)
5            someList.add(k);
6        return someList;
7    }
8
9    public static List<Integer> process2(int n)
10   {
11       List<Integer> someList = new ArrayList<Integer>();
12       for (int k = 0; k < n; k++)
13           someList.add(k, k);
14       return someList;
15   }
```

- ● a. Both methods produce the same result and take the same amount of time.
- b. Both methods produce the same result, and process1 is faster than process2.
- c. The two methods produce different results, and process1 is faster than process2.
- d. The two methods produce different results, and process2 is faster than process1.

Clear my choice

Question **19**

Not yet answered

Marked out of 1.00

What is printed as a result of executing the following code segment?

```
1    import java.util.List;
2    import java.util.ArrayList;
3
4    public class Main {
5
6        public static void main(String args[]) {
7            List<Integer> aList = new ArrayList<Integer>();
8            aList.add(new Integer(1));
9            aList.add(new Integer(2));
10           aList.add(1, new Integer(5));
11           aList.set(1, new Integer(4));
12           aList.add(new Integer(6));
13           aList.add(new Integer(3));
14           System.out.println(aList);
15       }
16   }
17
```

- ⦿ a. [1, 4, 2, 6, 3]
- ○ b. [1, 2, 5, 4, 6, 3]
- ○ c. [1, 2, 3, 4, 5, 6]
- ○ d. Compiler error

Clear my choice

Question **20**

Not yet answered

Marked out of 1.00

What is printed as a result of executing the following code segment?

```
1    import java.util.List;
2    import java.util.ArrayList;
3
4    public class Main {
5
6        public static void main(String args[]) {
7            List<Integer> list1 = new ArrayList<Integer>();
8            list1.add(new Integer(1));
9            list1.add(new Integer(2));
10           list1.add(new Integer(3));
11           list1.set(2, new Integer(4));
12           list1.add(2, new Integer(5));
13           list1.add(new Integer(6));
14           System.out.println(list1);
15       }
16   }
```

- ○ a. [1, 2, 4, 5, 6]
- ⦿ b. [1, 2, 5, 4, 6]
- ○ c. [1, 2, 3, 4, 5]
- ○ d. [1, 5, 2, 4, 6]

Clear my choice

Question 21

Not yet
answered

Marked out of
1.00

What is the output of the following code?

```java
import java.util.Arrays;

public class Main {

    public static void main(String args[]) {
        int tab[] = new int[6];
        for (int i = 6; i > 0; i--) {
            tab[6 - i] = i;
        }
        Arrays.fill(tab, 1, 5, 0);

        for (int i = 0; i < 6; i++) {
            System.out.print(tab[i]);
        }
    }
}
```

- ○ a. 654321
- ○ b. 611110
- ⦿ c. 600001
- ○ d. 543210

Clear my choice

Question 22

Not yet
answered

Marked out of
1.00

What is printed as a result of executing the following code segment?

```java
import java.util.Set;
import java.util.TreeSet;

public class Main {

    public static void main(String args[]) {
        Set<Integer> aSet = new TreeSet<>();
        aSet.add(1);
        aSet.add(2);
        aSet.add(1);
        aSet.add(4);
        aSet.add(6);
        aSet.add(3);
        aSet.remove(1);
        System.out.println(aSet);
    }
}
```

- ○ a. Compiler error
- ⦿ b. [2, 3, 4, 6]
- ○ c. [2, 1, 4, 6, 3]
- ○ d. [1, 2, 3, 4, 6]

Clear my choice

Question 23

Not yet
answered

Marked out of
1.00

What is printed as a result of executing the following code segment?

```java
import java.util.TreeSet;
import java.util.Iterator;

public class Main {

    public static void main(String args[]) {
        TreeSet<Integer> aSet = new TreeSet<>();
        aSet.add(10);
        aSet.add(20);
        aSet.add(10);
        aSet.add(40);
        aSet.add(60);
        aSet.add(30);
        aSet.remove(10);

        Iterator itor = aSet.descendingIterator();
        while (itor.hasNext()) {
            System.out.print(itor.next() + " ");
        }
    }
}
```

- ○ a. 20 30 40 60
- ● b. 60 40 30 20
- ○ c. 20 10 40 60 30
- ○ d. Compiler error

Clear my choice

Question 24

Not yet
answered

Marked out of
1.00

Iterator and ListIterator can iterate through _____

- ○ a. Set
- ● b. List
- ○ c. Map
- ○ d. Collections

Clear my choice

Question 25

Not yet
answered

Marked out of
1.00

Which of the following interfaces maintains the order in which the elements are inserted?

- ● a. List
- ○ b. Set
- ○ c. Map
- ○ d. ArrayList

Clear my choice

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